

**River Corridor/Central Plateau  
Tri-Party Agreement Milestone Review  
Meeting Minutes  
January 17, 2013**

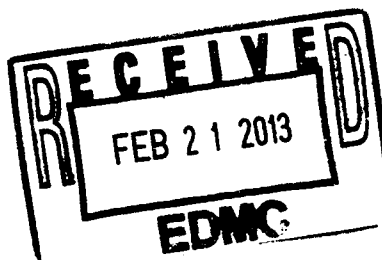
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J. Hedges  
Ecology IAMIT Representative

Approval: [Signature] Date: 2.21.13  
J.A. Dowell  
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Approval: [Signature] Date: 2-21-2013  
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EPA IAMIT Representative

Minutes Prepared by: [Signature] Date: 2/21/2013  
T.W. Noland  
Mission Support Alliance, LLC

|                   |         |
|-------------------|---------|
| Blackburn, J. E.* | WCH     |
| Bohnee, G.        | NPT     |
| Bond, F.W.*       | Ecology |
| Brown, M.J.*      | Ecology |
| Bryson, D.C.      | RL      |
| Butler, D.H.*     | MSA     |
| Cameron, C.E.     | EPA     |
| Charboneau, B.L.* | RL      |
| Cimon, S.*        | ODE     |
| Cline, M.W.       | RL      |
| Collins, M.S.*    | RL      |
| Cox, W.G.         | CHPRC   |
| Dittmer, L.M.*    | CHPRC   |
| Dover G.L.*       | WCH     |
| Dowell, J.A.*     | RL      |
| Einan, D.R.       | EPA     |
| Ellison, B.A.     | RL      |
| Farabee, O.A.     | RL      |
| Faulk, D.A.       | EPA     |
| Foley, B. L.*     | RL      |
| French, M.S.*     | RL      |
| Gadbois, L.E.     | EPA     |
| Goswami, D.*      | Ecology |
| Harris, S.        | CTUIR   |
| Hedges, J.*       | Ecology |
| Henry, D.         | ODE     |
| Jentzen, B.K.     | Ecology |
| Jim, R.           | Yakama  |
| Kaldor, R.A.*     | MSA     |



|                       |         |
|-----------------------|---------|
| Killoy, S.E.          | WRPS    |
| Korenkiewicz, S.L.*   | RL      |
| Knox, K.E.*           | KCR     |
| Lobos, R.A.*          | EPA     |
| Long, R.L.*           | RL      |
| Lynch, J.J.*          | ORP     |
| McKarns, A.C.         | RL      |
| Menard, N.M.*         | Ecology |
| Morse J.G.            | RL      |
| Nguyen, T.L.          | RL      |
| Niles, K.             | ODE     |
| Noland, T.W.*         | MSA     |
| Ortiz, S.M.           | RL      |
| Peschong, J.C.        | RL      |
| Piippo, R.E.*         | MSA     |
| Popielarczyk, R.S.    | CHPRC   |
| Price, J.B.*          | Ecology |
| Romine L.D.           | RL      |
| Russell, R.W.         | ORP     |
| Singleton, D.G.*      | Ecology |
| Skinnarland, E.R.*    | Ecology |
| Teimouri, A.E.        | HQ      |
| Teynor, T.K.*         | RL      |
| Vanni, J.             | Yakama  |
| Welsch K.R.           | Ecology |
| Whalen, C.*           | Ecology |
| Williamson, R.U.*     | WCH     |
| Yasek, D.M.*          | WCH     |
| Administrative Record |         |

\*Attendees

**River Corridor/Central Plateau  
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**River Corridor Closure Project - Milestones M-16/M-89/M-92/M-94**

Quarterly Summary (October - December 2012) - DOE-RL stated that the proposed milestones under M-16, M-89 and M-94 are in the public comment period. DOE-RL noted that there are 12 proposed milestones under the River Corridor project, and one of the proposed milestones (P-016-162) was completed in December 2012.

Milestone Status:

M-092-16 - DOE-RL stated that this milestone should be met ahead of schedule when the removal of the 300 Area Special Case Waste is completed this spring. The 340 vaults will be cut and placed on the transporter and then taken to ERDF.

Significant Accomplishments - For Last 3 Months:

M-16 - Remedial Action/Risk Assessment - DOE-RL reported that the backfill of 100-C-7 is about 90 percent complete.

M-89 - 324 Building - DOE-RL stated that the 324 infrastructure evaluations continue, and the rails were inspected to ensure they are straight and will support the operations. The embeds in the concrete for the rail system are being evaluated to determine whether upgrades are needed to the crane rail system that will support removal of the soils underneath the 324 hot cells. DOE-RL also noted that the HEPA filters and the steam heating coils were replaced in the ventilation system.

M-94 -300 Area Surplus Facilities Disposition - DOE-RL stated that the 308 TRIGA reactor, which weighed about 250 tons, was removed. The removal was originally scheduled to be completed in late FY12, but the water line breaks and other issues slowed the removal. DOE-RL noted that the TRIGA reactor was removed without incident.

ERDF - DOE-RL stated that about 1.7 million tons of waste is planned for disposal at ERDF in FY13, although that amount may not be achieved, depending on continuing funding throughout the year. DOE-RL stated that it is working with EPA on the path forward for getting the in-trench treatment restarted.

Significant Actions Planned - For Next Six Months:

M-16 - Remedial Action/Risk Assessment - DOE-RL reported that excavation of the drums in 618-10 was stopped at the end of November 2012 due to issues with some of the modeling and the non-destructive assay (NDA). Reviews were performed, and it was

confirmed that none of the waste placed in ERDF was transuranic (TRU). Independent reviews are being conducted, and once the issues are settled in the next two weeks, remediation of 618-10 is anticipated to be restarted.

ERDF - DOE-RL stated that the B Reactor lead-contaminated sediment that will be sent and treated at ERDF is a small volume of sediment that was left in the fuel storage basin at the B Reactor. DOE-RL added that it is radioactive sediment that was left over after the basin was cleaned out several years ago, and the sediment was mixed with sand, and then grout and plywood was placed over the top. The work is scheduled for completion sometime in February 2013. The contractor (WCH) is conducting dry runs for doing the work. A pressure wash is being used to move the sediment out and pump it through and filter out the contamination, which will be sent to ERDF.

Performance Summary - DOE-RL reported that the cost and schedule variances for the project overall remain positive. The schedule variance continues to go down as more work is being completed, and the cost savings continue to grow.

Issues - DOE-RL reported that it continues to work with Ecology to resolve issues associated with the No Action Waste Site Classification Forms and the Remaining Sites Verification Packages for the 100-D clean water pipelines. DOE-RL has received comments from Ecology on some of the closure documents. One area of focus that has been discussed in meetings with Ecology is sections of certain pipelines in the H Area.

### **Hanford 100-K Remediation - M-016 and M-093 TPA Milestones**

#### Accomplishments - 1st Quarter 2013:

Completed Milestones - DOE-RL reported that M-016-53 was completed, which was the Phase 1 waste sites and facilities. There were 32 waste sites interim remediated and 27 facilities removed. Funding provided through the American Recovery and Reinvestment Act (ARRA) allowed for completion of some waste site remediation in Phase 2 and Phase 3. DOE-RL noted the area where the 183 sedimentation complex used to be located was contoured to ensure water would be diverted away from possible continued contamination from adjacent waste sites yet to be remediated.

STP Phase 1 Removal of Containerized Sludge (M-016-174) - DOE-RL stated that the final design for the sludge retrieval and transfer system is at about 90 percent complete, and a review of the components is being done in an effort to improve the process. DOE-RL reported on the status of the Preliminary Documented Safety Analysis (PDSA). The PDSA is needed for the Critical Decision 2 and 3 (CD-2/3), which is the baseline and final design. The Defense Nuclear Facilities Safety Board (DNFSB), in its periodic report to Congress issued December 24, 2012, stated there were two new issues with the sludge treatment project for the spray leak analysis and the safety instrumentation. DOE-RL noted that those were old issues that had been identified when the DNFSB reviewed the documents in July 2012. DOE-RL stated that the safety instrumentation issue was resolved to the DNFSB's satisfaction, and the spray leak methodology is close to being resolved. The spray leak methodology is tied to the PDSA with the volumes and the

material that may be atomized in the cloud that would be developed. DOE-RL noted that the purpose of the PDSA is to help set the pedigree of the instrumentation to determine whether it's safety class, safety significant or commercial grade.

DOE-RL stated that with the different methodologies the DNFSB and DOE-RL applied, the DNFSB agreed to disagree with DOE-RL. DOE-RL added that differences between the two processes and the end results are minimal, and the DNFSB agreed that DOE-RL could move forward with its spray leak methodology. DOE-RL stated that it is on track to meet the milestone by September 30, 2013, and it anticipates receipt of the contractor's CD-2/3 submittal package and final design by April 2013. Upon receipt of the CD-2/3 package and final design, an independent DOE-RL review will be conducted in June 2013, and the intent is to have the final package approved by July 2013. Once the CD-2/3 package is approved, the equipment will be purchased and installed in the basin to start transferring material.

Sludge Removal from 105-KW Fuel Storage Basin (M-016-175) - DOE-RL reported that there were a number of quality assurance issues associated with the annex construction, mainly with the program and documentation. The contractor initiated a quality stand-down in December 2012, and work was restarted in January 2013. DOE-RL stated that the Cold Vacuum Drying Facility (CVDF) is in the process of being transferred from a Category 2 facility to a radiological facility, which will save about five million dollars a year.

DOE-RL reported on an unexpected development regarding three pieces of N Reactor fuel that were found in the K West Basin. The basin was thought to be "fuel free" upon completion of the 2010-2011 vacuuming and videotaping campaign. The fuel was found in the southeast corner of the basin near where the settler tubes are located. There was a lot of fine particle material, mostly Grafoil, a gasket material used to seal the fuel canisters, that may have masked the pieces of fuel. DOE-RL stated that the first piece of found fuel was about an inch to an inch-and-a-half long. Another piece may be just cladding. The third piece that was found yesterday (1/16/13) is probably suspect fuel since the dose is 35R on contact. DOE-RL noted that if the dose is more than 5R it is suspect fuel, and the pieces found so far range from 25 to 30R. The piece of cladding found was around 10 to 11R. The fuel will be moved to a lower radiological area and then dosed again.

DOE-RL does not plan to use the canister storage building (CSB) and the CVDF to process these three pieces. DOE-RL stated that WCH had started development of a dry storage cask process, that PRC will now continue to develop. It is DOE-RL's plan to place this and future found fuel/fuel scrap into a dry storage cask. The dry cask will be placed on the storage pad outside the CSB along with the FFTF fuel. DOE-RL noted that the found fuel was a carried risk, and Plan B was the completion and implementation of the dry storage cask process.

DOE-RL has informed EPA of the issue and will continue to provide EPA information as it becomes available. An extent of condition review will be conducted, and the



videotapes of the 2010 basin campaign will be re-reviewed. DOE-RL added that spot checks elsewhere in the basin will be done to ensure there is no additional fuel/fuel scrap in the KW Basin. DOE-RL noted that the use of high definition, color underwater cameras and monitors (used for the KOP processing campaign) greatly added operator visibility and contributed to finding the three additional pieces of fuel scrap on the floor. The 2010-2011 floor inspection used the best available black and white cameras and monitors.

KE Reactor Interim Safe Storage (ISS) - DOE-RL stated that it is not declaring the 105KE Reactor is in ISS, but it is in a mode working towards ISS. EPA characterized it as "interim interim safe storage." Development of a surveillance procedure needs to be completed. The interior has been cleaned out as much as possible with the funds that were available. DOE-RL is continuing to have discussions with EPA regarding additional interior cleanout. DOE-RL stated that issues identified by EPA have been completed; i.e., stabilizing asbestos, removal of all the oils and solvents, removal of the core borings from the reactor, removal of ballasts and lights, etc. DOE-RL reached agreement with EPA that if a component is at a certain level it could be left in place in the reactor. Discussions are ongoing regarding more asbestos abatement that may be necessary.

EPA stated that removal of the transite panels is the remaining item to be completed. DOE-RL stated that a number of the panels were damaged when the chains were removed from the elevator. The plastic that was a flammable hazard has been removed from around the panels, and the panels are currently placed on an upper level in a safe configuration. EPA cautioned DOE-RL to ensure it is compliant with the asbestos National Emission Standards for Hazardous Air Pollutants (NESHAP) when removing the panels. DOE-RL responded that it will ensure compliance, noting that any future asbestos work will be done with assistance from the asbestos expert from Alaska. DOE-RL is working with EPA to determine the best and safest way to remove the panels from the reactor. DOE-RL noted that the panels weigh several tons.

100K Waste Site Remediation - DOE-RL reported that interim revegetation was done around the 105KE Reactor to keep the soil in place and minimize the possibility of contaminated soil being distributed across the site by high winds.

The Data Quality Objective (DQO)/Sample Analysis Plan (SAP) was completed for the UPR-100-K-1 and the 100-KE-3 waste sites. The UPR-1 was an unplanned release from the discharge chute located against the reactor face. DOE-RL noted that the 116-KE-3 dry well, which is further out, is another area of concern (mainly cesium and strontium). Discussions are under way with the contractor about whether the additional waste site investigative work is in the contract since similar work had previously been done in support of the 100K Area Remedial Investigative Feasibility Study. A mockup is planned before doing the work at 116-KE-3 to ensure the procedures are set and the workers are aware of the dangers with the radiological soil potential. DOE-RL is seeking funding for work in these two areas of concern. Underruns from other RL-0041K projects has been identified and the contractor is validating the amount of the underruns.

DOE-RL noted that completing the work is very high on the priority list for 2013.

Milestone Status - DOE-RL stated that the milestones at risk are the same status as discussed during the October 2012 quarterly review. DOE-RL has requested the appropriate funding, but the realities of sequestration and the continuing resolution result in the milestones being at risk. EPA stated that it has no intention of renegotiating the dates for the milestones that are at risk. EPA sent an email to DOE-RL in response to the milestones that are at risk, stating that there should be a plan to get the milestones on track, and that all the milestones need to be met. DOE-RL acknowledged EPA's position, and stated that it will continue to work with EPA in an effort to complete whatever work is possible with the resources provided.

Project Baseline Performance - DOE-RL reported that performance for RL-41 is slightly ahead of schedule overall and slightly under budget. For RL-12, the negative schedule variance is due to the delays in getting the fuel removed from the basin in September 2011. The decision was made to not press for completion by September, due to major layoffs at the time, and the work was deferred to March 2012. RL-12 is slightly behind schedule, and the cost is at 1.0, which is the goal.

Planned Activities Next Six Months:

105KE Reactor ISS - DOE-RL stated that facility hazard categorization (FHC) will be implemented, which downgrades the facility from a Category 3 facility down to a radiological facility, except for the reactor block. EPA requested that the acronyms in the handouts be spelled out.

D4 and Soil Remediation - DOE-RL stated that the focus for structures removal and soil remediation (as funding permits) will be around the K East head house where the hexavalent chromium was brought in by rail car. The work will be approached in the same manner as in the K West side in an effort to take out multiple waste sites as work progresses through the area and to realize efficiencies. Lessons learned from K West will be applied to K East.

Recent Found Fuel - DOE-RL stated that working towards resolution of the found fuel should be added to the list of planned activities. The fuel will be put into a canister and segregated into the west bay in the spent fuel pool and then monitored. DOE-RL explained that the main reason for not using the CVDF is that a significant amount of experienced personnel were lost. Three senior people stayed a year past retirement to assist with removal of the knockout pot and found fuel. When the 2012 workforce restructuring was done, 33 of the 53 operators were moved elsewhere onsite. It would be difficult to reconstruct a fully qualified workforce, and it would involve intensive training. If the CVDF were to be used, it's likely that an operational readiness review would need to be done.

Ecology asked if there is any activity in the CVDF. DOE-RL responded that the calibration of the instrumentation that is necessary for the last fuel offloads is being

finalized to ensure the readings were accurate. The documentation of instrumentation is necessary to provide to the safeguards and security group and to the future high level waste repository. The information goes into data packages, and there are 18 packages. Thirteen data packages have been completed and five are in process. DOE-RL noted that if the found fuel is less than a gram or is a gram equivalent, DOE-RL can back out of the safeguards and security posture, although it will still be considered found fuel.

### **M-36 Lifecycle Report**

DOE-RL reported that the lifecycle report, due January 31 of each year, is on schedule for submittal. A fact sheet will be issued that provides the major changes between the 2012 and 2013 lifecycle report. The lifecycle report will be available online, and DOE-RL stated that an effort is being made to reduce the number of hard copies produced. EPA requested one hard copy, and Ecology requested two.

### **PFP Closure Project - TPA Milestone M-083**

Quarterly Milestone Summary (October - December 2012) - DOE-RL stated that there were no changes to the milestone projections. Milestone M-083-44 remains in jeopardy for demolition ready by September 30, 2015. DOE-RL is continuing to work on regaining the schedule, but the budget constraints including the continuing resolution are affecting that effort.

Accomplishments - 1st Quarter - DOE-RL stated that the Plutonium Reclamation Facility (PRF) canyon crane vertical lift capability was repaired. During testing of the crane, a problem with the limit switch on the crane was discovered. The goal is to restart work using the crane sometime next week. DOE-RL indicated that it is considering doing a failure, mode and effects analysis on the crane to look at what has gone wrong with the crane and what could possibly go wrong. The crane is an intensively managed resource since it is used for size-reducing the pencil tanks.

DOE-RL provided a status on leaks from chemical lines within the 234-5Z facility that have occurred during the last quarter. A chemical mitigation team has been formed to inspect the lines and reassess the extent of condition. During the previous contract there was a dedicated effort to drain some of the lines in the facility. Ultrasonic testing and nondestructive assay (NDA) have been being conducted to look for residual chemicals in the lines, and a report is being prepared. DOE-RL stated that recently, after a chemical line had been cleaned out and ultrasonic testing was performed, three or four teaspoons of nitric acid spilled out of the line when it was cut. Since the line was considered ready to be cut, one theory is that the chemicals in the lines can be changing within the pipes from a vapor to a liquid form. DOE-RL stated that the situation is being managed very carefully, and it is in the process of determining how to move forward.

Project Baseline Performance - DOE-RL reported that the cost and schedule performances are doing well. The chemical line mitigation efforts in the past month or so have affected what was planned to be accomplished during that time frame, and the intent

is to recover the schedule, especially with the PRF crane becoming operational. PFP went to a 5/8 schedule on December 24, 2012, which brings 26 days back into the schedule through FY13. The 5/8 schedule was due to some field work supervisor positions not being filled and employees not willing to take overtime. The field work supervisors are the core leaders of the teams, and the process is under way to fill those positions. Ecology asked whether M-083-00A will be met in 2016 if the funding remains at the current level with the continuing resolution and the current number of crews. DOE-RL responded that the milestone will be completed, and that the risk is meeting the demo ready milestone in 2015.

Issues/Challenges - DOE-RL provided an update on the recent contamination situation that occurred during a seal-out of an upper section of a plutonium processing glovebox in 235A-3. When all of the plastic was brought together in a horsetail and being cut, the horsetail slipped out from under a wet towel and it caused a spread of contamination in the room. There were four employees in a high contamination area performing the seal-out of the glovebox section, and a continuous air monitoring (CAM) alarm sounded when the contamination was spread from the horsetail cut. The four workers exited to the adjoining room, which was a high contamination area but not an airborne radiation area. There were five individuals in a work support role that were outside of the high contamination boundary, and they were not wearing the same level of personal protective equipment. The five individuals began to survey and assist in the undress of the four employees that had exited into the room.

Two employees had contamination on their personal protective equipment (PPE), and after three of the four employees from the original room had been successfully undressed and left the area, a CAM alarm sounded in the room where the employees were undressing. All of the personnel had to back out of that room, and all nine of the employees were undressed, surveyed, and cleared the portal monitor and the whole body frisk. Four of the five individuals in the work support role had positive nasal smears, and the results of the bioassay are expected this week.

The facility has been evaluating its emergency response procedures to formalize the expectation that employees responding to an event should be wearing the same level of personal protective equipment as the employees who exit an affected area. For team members who are not part of an event response, the expectation will be that they exit the area immediately.

Planned Activities Next 3 Months - DOE-RL stated that the ventilation system is one of the key safety systems in the facility, and preventive maintenance activities have been energized in the past year. Vibration analysis testing on fan blades is being conducted, and cracks along the blades are being repaired and welded.

### **M-091/M-026/M-016 TPA Quarterly Milestone Review**

#### Accomplishments - 1st Quarter 2013

DOE-RL noted the three milestones that are part of the summary report, including M-016-93B, which is the CERCLA work plan that is supposed to tie any transuranic (TRU) waste coming out of CERCLA activity and to integrate with RCRA TRU waste activities. EPA asked about signing off on the change package for M-016-93. Ecology noted their request to combine M-016-93 with M-091-03 was declined by DOE-RL. EPA stated its position that it is an inefficiency and makes no sense to produce an M-016-93 report. DOE-RL stated that it had drafted two milestone change requests, one to delete M-016-93 and one to add the M-016-93 scope into M-091-03, and an internal discussion is needed regarding the subject. Ecology suggested that prior to producing the next report, the Tri-Parties should discuss the issue in an attempt to come to agreement. EPA stated that it is ready to sign off on the change packages, and it will wait for an update from DOE-RL during the biweekly meetings.

M-091-44Z-003 - DOE-RL reported that the annual or quarterly notification requirement for report certification in lieu of treatment was done via the December 2012 project managers meeting (PMM). The PMM minutes will be signed next week documenting the requirement was met. DOE-RL noted that no treatment of certification was actually done in lieu of treatment for TRU waste.

M-091-40L-036 - DOE-RL stated that the Burial Ground sample results were reported during the December 2012 PMM, and the PMM minutes will be signed next week. There were no sample results to report since no sampling was done.

M-091-03F - DOE-RL stated that responses were provided to Ecology's comments on the Project Management Plan (PMP), which is due June 30 every year. Ecology stated that the 2012 PMP was essentially declined due to the number of comments and significant changes it is requesting. Ecology indicated that the plan is to resolve the comments and changes for incorporation into the upcoming 2013 PMP instead of working to finalize the 2012 PMP.

Ecology requested a statement to be inserted in today's handout and the minutes as follows: "The comments were not resolved to Ecology's satisfaction because 55 of 67 DOE-RL responses were either 'not accepted,' 'partially accepted,' or requests for clarification."

DOE-RL requested a meeting with Ecology in late January or early February 2013 to discuss the issues in an effort to reach agreement on the content of the 2013 PMP. Ecology suggested that a draft PMP should be ready for review sometime in March 2013. DOE-RL noted that when the meeting is held with Ecology, background and justification for the 55 comments that was previously provided will be discussed. Ecology noted that there is a big difference of opinion between Ecology and DOE-RL regarding the PMP. Ecology took the action to schedule a meeting for discussion on the PMP comments and responses.

M-091-40 - DOE-RL reported that the target milestone associated with this milestone to retrieve 250 cubic meters by September 30, 2013 will be missed, due to budget

constraints.

M-091-41 - DOE-RL stated that no waste will be retrieved in 2013.

M-091-42 - DOE-RL reported that no treatment has been done for mixed low-level waste that falls under the scope of M-091-42. If the waste is newly generated, low-level waste or mixed low-level waste, the normal regulatory clocks are being met.

M-091-43 - DOE-RL stated that if there is newly generated waste it is meeting the normal regulatory clocks, but if the waste falls under the scope of M-091-43 (legacy type of waste), no treatment has been done in the past quarter and no waste is expected to be treated in FY13.

M-091-44S - DOE-RL reported that about 120 cubic meters have been certified to meet the 2018 milestone. No treatment or certifying in lieu of treatment will be done in FY13.

M-091-46 - DOE-RL reported that the target milestone associated with this milestone to certify 125 cubic meters of TRU mixed waste in 2013 will be missed. DOE-RL noted that some of the waste in above-ground storage is not subject to M-091-46.

Project Baseline Performance - DOE-RL stated that some of the bigger cost variances are artifacts of 2010 and 2011, which have been reported previously. DOE-RL noted that the project performance is now being reported contract-to-date to align with the other TPA milestone reports.

Actions Planned for Next Six Months - EPA suggested that a discussion should be held regarding the need for the annual Tritium Treatment Technology Development Report, and Ecology concurred. Ecology inquired about the impact that missing the target milestones will have on the 2016 and 2017 milestones. DOE-RL responded that there is a concern, not necessarily with the current lack of funding, but with the length of time it will take to train new crews and go through the readiness process. DOE-RL added that even if ramping up starts in late 2014 or early 2015, there would still be a concern about meeting the 2016 and 2017 milestones. Ecology requested a more detailed schedule in the PMP to be able to evaluate whether the project is on track to meet the milestones. Ecology noted that DOE-RL has a good understanding of how to execute the project, but the PMP doesn't reflect that understanding in the schedule and planning. DOE-RL acknowledged Ecology's position, and the request could be part of the PMP discussion.

### **Central Plateau Remediation Project - M-016-00, M-085-00**

Accomplishments 1st Quarter 2013 - DOE-RL noted that the asbestos steam lines behind 284 West and U Plant were packed and sent to Arlington landfill for disposal. The bags containing asbestos that were placed in Conex boxes were also shipped to Arlington.

Planned Activities Next 6 Months - DOE-RL added an activity that was not included in today's handout, stating that with respect to working with asbestos issues post D&D sites,

walk-downs are planned with EPA. Currently the walk-downs are scheduled every six months. DOE-RL attempted to schedule a walk-down for the upper and lower Arid Lands Ecology Reserve (ALE) in December 2012, but the weather conditions precluded the walk-down. DOE-RL is still working on rescheduling a walk-down, and there are other sites to look at also. EPA stated that a walk-down was recently done during the cold weather, and suggested waiting until spring to schedule the walk-down. EPA noted that a surveillance and maintenance (S&M) has been set up for the various sites to look for asbestos that has worked its way up, and it will be picked up if it is found. DOE-RL added that a grid will be developed since the upper and lower ALE is such a large area.

### **Soil and Groundwater Remediation Project Milestone Review - M-015-00, M-016-00, M-024-00, M-037-00, M-085-00**

#### Accomplishments - 1st Quarter 2013:

DOE-RL reported that the commitments were met for the renegotiated completion criteria for milestone M-015-00, and that the revised milestone allows the 100-BC Area to be deferred. EPA noted that the remedy for 100 D&H Areas will either need an exemption from the Remedy Review Board or it will have to be previewed by the Board. EPA has sent Ecology the information and will send it to DOE-RL, noting that an exemption process from the Remedy Review Board has been implemented. EPA added that the proposed D&H cleanup is very similar to what was previewed by the Board on the K Area. DOE-RL noted that a substantial amount of the remedy will have been implemented in 100-HR-3, and asked if that will factor in. EPA responded that it would be a reason for an exemption. The Oregon Department of Energy (ODOE) asked if the criteria for going to the Board has changed. EPA responded that the criteria has not changed. EPA added that the genesis for the exemption process came from EPA Region 10 as a result of the number of upcoming Hanford cleanup decisions that were very similar. EPA made a determination that there wasn't much added value for the Board to review all the cleanup decisions. EPA noted that the exemption process is being called an offramp.

EPA stated that if DOE-RL selects the remedy that has been proposed for the F Area, it will not trigger the Board criteria. Ecology noted that it is doing a comparison of the D&H Area proposal with the K Area to ensure there are no major differences or omissions. EPA noted that the N Area would probably not qualify for an exemption.

200 West Area Groundwater Treatment Facility - DOE-RL stated that the treatment facility has been operating successfully, and reported that the pump and treat throughput has increased to 1,800 gallons per minute.

200-DV-1 - DOE-RL stated that it is still considering rerouting the perched water from the Effluent Treatment Facility (ETF) to a different alternative treatment facility. DOE-RL reported that the perched water extraction system is still running and collecting a large amount of uranium from the groundwater. EPA noted that a potential regulatory

path forward for a removal action was proposed to DOE-RL. Ecology asked if the numbers for extraction of uranium (2 kg) and nitrates (40 kg) was for the quarter. DOE-RL responded that the numbers were for the quarter, noting that a slight change was made for recording nitrates. In the past the weight was calculated, but the conclusion was that industry standard is to just claim nitrogen, which reduces the numbers by over 75 percent. However, only the nitrogen is being counted and not the oxygen portion, which comes out the same.

EPA stated the assumption that if the perched water is sent to the 200 West facility, the treatment system will extract the uranium. DOE-RL stated that the uranium will not be acceptable when it is removed, and the preference would be to pretreat the uranium due to its high concentration. EPA noted that there is authorization in the 200-UP-1 decision to build a uranium treatment system. DOE-RL stated that it has looked at a couple of treatment options, noting that since it is a small treatment that a tiny column could be installed to treat the uranium. The other treatment system option would be to install a large column that could be used for UP-1, ERDF, etc., but there would be a cost consideration with the current budget constraints.

Ecology stated that the one groundwater well operating in 200-UP-1 has removed close to 16 kgs of uranium and more than 150 kgs of nitrate, and the uranium concentration has increased from 1,500 picocuries per liter to around 5,000 picocuries per liter. Ecology stated that one well is not sufficient, and through working with DOE-RL a determination was made that three wells are needed. Ecology added that there is a question about the well leaking to the aquifer 20 feet below because the groundwater concentration is increasing. Ecology noted that the current status is that there is no funding for even one additional well. DOE-RL stated that an expedited contract action has been taken to decommission the suspect well, and there is one other suspect well near the evaporator that may be decommissioned. DOE-RL stated that the stainless steel well near the evaporator has corroded through in three years. The perched water in the area has come up and eaten through the well and is draining down into the aquifer, adding chrome. DOE-RL stated that the source of the chrome is unknown, but it could be coming from the stainless steel well that is dissolving. Ecology asked if there is a schedule for removing the first well that was discussed. DOE-RL responded that there is a schedule being developed that should be ready within two months.

Ecology reiterated that a minimum of three wells is needed due to the increasing well concentrations, and that one well is not enough for the tremendous amount of mass removal for uranium and Tc-99. EPA stated the expectation is that the perched water in 200-DV-1 would have been included in the remedy for 200-BP-5. DOE-RL noted that perched water was considered a deep vadose zone because it's a pool of water in the vadose zone. DOE-RL was doing testing in the vadose zone and originally thought the pool of water would disappear quickly, but the amount of water turned out to be much larger. EPA noted that the remedy for 200-BP-5 is due at the end of 2015, and the perched water remedy isn't due for four years after that, which could be problematic.



Ecology noted that EPA indicated there are options, and asked if DOE-RL is working on those options. DOE-RL responded that options are being worked, and a decision may need to be made to prioritize what will be deferred since all of the funding has been allocated for the next three years. ODOE asked about the scale of the plume of perched water. DOE-RL indicated that there are volume metric estimates for the plume, and it was determined that two or three wells would be better to pump the plume. Ecology added that with the additional three wells it was estimated the plume would go dry in about six months.

Ecology stated that an Engineering Evaluation and Cost Analysis (EE/CA) is being prepared, and a draft should be ready by the end of March 2013.

Milestone Summary - DOE-RL noted that one of the proposed actions is to conduct enhanced monitoring at 100-BC, and the contract action has been taken to plan the work. Funding is being sought to authorize the contractor to drill, and the 100-BC-5 activities are on schedule to be initiated.

DOE-RL noted that the draft revised closure plans for the 216-B-3 Pond and the 216-S-10 Pond and Ditch were received from Ecology. DOE-RL stated that a review was done by the contractor, the RCRA regulatory group, DOE-RL and legal, and the status for milestone M-037-03 was changed to at risk. A notification letter will be sent to Ecology. DOE-RL noted that there is a path forward that could allow some progress to be made. DOE-RL stated that the S Pond closure plan date could possibly be met, and there are some policy issues that need to be discussed and resolved. DOE-RL suggested that when the S Pond is completed, there should be discussion about cleaning up some of the treatment, storage and disposal (TSD) units.

DOE-RL stated that the B Pond closure plan was last revised about ten years ago, and DOE-RL provided Ecology additional characterization that was done in 2009. DOE-RL noted that Ecology did not fully incorporate that characterization data into the closure plan, and DOE-RL has not incorporated the data. DOE-RL indicated that it believes the closure plan could not be revised with the additional characterization data by the due date. Ecology stated that the 2009 data could not be located, which posed an issue with the B Pond closure plan revision. Ecology added that DOE-RL called the B Pond safe shutdown, and completion reports with data were not available or not done. DOE-RL stated its intent to propose a path forward that will allow progress.

Project Baseline Performance - DOE-RL noted that four of the five items listed are cost accounts that are now closed and aren't being used anymore. The only remaining cost account that's in effect is RL-0030.01 RL 30 Operations, and it will be the only one that is reported in the future. DOE-RL added that if it goes into a construction activity, another cost account will be created. DOE-RL stated that the \$11.5 million variance at completion (VAC) is a goal, and it is currently on track for that VAC. The intent is to be \$11 million under budget at the end of the fiscal year to apply to work that needs to be done. DOE-RL asked if there was a preference for reporting the yearly profile instead of contract-to-date. It was agreed that both yearly and contract-to-date would be useful to

report.

EPA asked what the projected budget is for FY13. DOE-RL responded that the Congressional funding is \$165 million, and the contractor receives \$93 million. The delta is due to no dedicated funding for sitewide services, and each project has to contribute to that funding. The forecasted contributed is \$65 million, and that leaves less than \$100 million. EPA expressed concern that since the new pump and treat facility is up and running, the groundwater project is lower on the priority list. DOE-RL stated that there are several construction activities going on, and it makes no sense to stop construction and then restart later, and it is more efficient to finish some activities. DOE-RL noted that there are several activities continuing, and with the budget constraints it is a challenge to obtain enough funding to complete some activities.

EPA stated that discussion needs to be held again in the biweekly meeting about prioritizing the buy-back list, since groundwater is not on the buy-back list. DOE-RL stated that the K Area characterization, drilling boreholes, and the 100-BC enhanced monitoring are at the top of the buy-back list, and it is projected that those projects will deplete the funding for buy-backs.

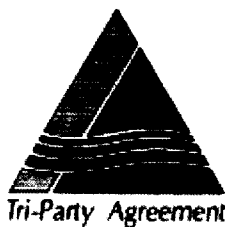
#### Planned Activities Next 6 Months:

100 BC Area - DOE-RL stated that the contractor has been authorized to prepare the contract packages for the drilling bidding to do the 100-BC-5 work.

200 Area - Ecology noted that the closure plans for the B Pond and S Pond and Ditch should result in an efficiency success since the work will total a fraction of the contractor's \$300,000 estimate. Ecology added that it is willing to meet within the next month to discuss the policy issues on the closure plans that DOE-RL identified.

100-DX - DOE-RL provided an update on the super resin used in the 100-DX facility. The 100-DX facility has been running just over two years without a single resin change, and the water is still coming out clean at the end. DOE-RL stated that if the other resins had been used, after two years there would have been 259 resin columns changed out at a cost of about \$10,000 for labor, shipping and transportation fees, and treatment fees for a total cost of about \$2.6 million. DOE-RL noted that the original estimate was \$20 million. DOE-RL added that the cost savings are estimated between \$100 million and \$130 million with the use of the resin to treat chrome along the river. ODOE asked where the current resin will be sent. DOE-RL responded that it will be stabilized and sent to ERDF as mixed radioactive waste, which will eliminate the cost, hazards, and the risk of a transportation issue.

DOE-RL stated that it has been demonstrated at K West that the skid that has columns can be divided into two sets of two columns in series instead of one column in four. The capacity in the buildings can be doubled by reconfiguring the piping and adjusting surge tanks, adding pumps and gauges. DOE-RL stated that if the throughput of the facilities are doubled, there likely will not be any additional labor cost.



**Thursday, January 17, 2013**  
Ecology Offices, Conference Room 3A/B  
3100 Port of Benton Blvd  
Richland, Washington

## **Agenda**

### **River Corridor/Central Plateau Milestone Review Meeting** **Chairperson: JD Dowell**

| <b>Time</b> | <b>Milestones</b>        | <b>Subject</b>                                     | <b>DOE Presenter</b> |
|-------------|--------------------------|--|----------------------|
| 8:30 a.m.   | M-16, 89, 93 and 94      | River Corridor Closure                             | Mark French          |
| 8:50 a.m.   | M-16 and 93              | 100 K Remediation                                  | Tom Teynor           |
| 9:05 a.m.   | M-36                     | Life Cycle Report                                  | Stephen Korenkiewicz |
| 9:10 a.m.   | M-83                     | PFP Transition                                     | Bryan Foley          |
| 9:30 a.m.   | M-26                     | Land Disposal Restrictions Report                  | Mike Collins         |
| 9:35 a.m.   | M-91                     | Acquisition of Facilities to TSD TRU/TRUM and LLMW | Mike Collins         |
| 9:40 a.m.   | M-16 and 85              | Central Plateau Remediation                        | Robert Long          |
| 9:45 a.m.   | M-15, 16, 24, 37 and 85  | Soil and Groundwater Remediation                   | Briant Charboneau    |
| 10:05 a.m.  | Adjourn Milestone Review |  |                      |

Tri-Party Agreement River Corridor/Central Plateau Milestone Review  
January 17, 2013

| <u>Name</u>              | <u>Organization</u> |
|--------------------------|---------------------|
| <u>James Lynch</u>       | <u>DOE-ORP</u>      |
| <u>McIntosh J Brown</u>  | <u>Ecology</u>      |
| <u>Reed Kaldor</u>       | <u>MSA-TPA</u>      |
| <u>Regena Williamson</u> | <u>WCH</u>          |
| <u>Job Blackburn</u>     | <u>WCH</u>          |
| <u>Gordon Dover</u>      | <u>WCH</u>          |
| <u>Dib Goswami</u>       | <u>Ecology</u>      |
| <u>DM Butler</u>         | <u>MSA</u>          |
| <u>Feel Ular</u>         | <u>EPA</u>          |
| <u>Tam Teyner</u>        | <u>DOE-RL</u>       |
| <u>Lorna Dittmer</u>     | <u>CHPRC</u>        |
| <u>Nina Menard</u>       | <u>Ecology</u>      |
| <u>Bob Long</u>          | <u>DOE-RL</u>       |
| <u>Michael Collins</u>   | <u>DOE-RL</u>       |
| <u>Bryan Foley</u>       | <u>DOE-RL</u>       |
| <u>Brian Charleston</u>  | <u>DOE-RL</u>       |
| <u>Deborah Singleton</u> | <u>Ecology</u>      |
| <u> </u>                 | <u> </u>            |
| <u> </u>                 | <u> </u>            |
| <u> </u>                 | <u> </u>            |

*Tri-Party Agreement River Corridor/Central Plateau Milestone Review  
January 17, 2013*

| <u>Name</u>          | <u>Organization</u>  |
|----------------------|----------------------|
| Terry Noland         | MSA                  |
| Kathy Knox           | Knox Court Reporting |
| Jane Hedges          | Ecology              |
| Jonathan Dowell      | DOERL                |
| Shirley Simon        | ODOE                 |
| Cheryl Whalen        | Ecology              |
| John Price           | Ecology              |
| Donna Yask           | WCH                  |
| Ron Skinneland       | Ecology              |
| Mark French          | DOE                  |
| Stephen KORENKIEWICZ | DOE                  |
| Rick Bond            | Ecology              |
| Rob PIRRO            | MSA                  |

# TPA Quarterly Review

For Period: October - December 2012

## River Corridor Milestones:

M-16      M-89      M-92      M-94

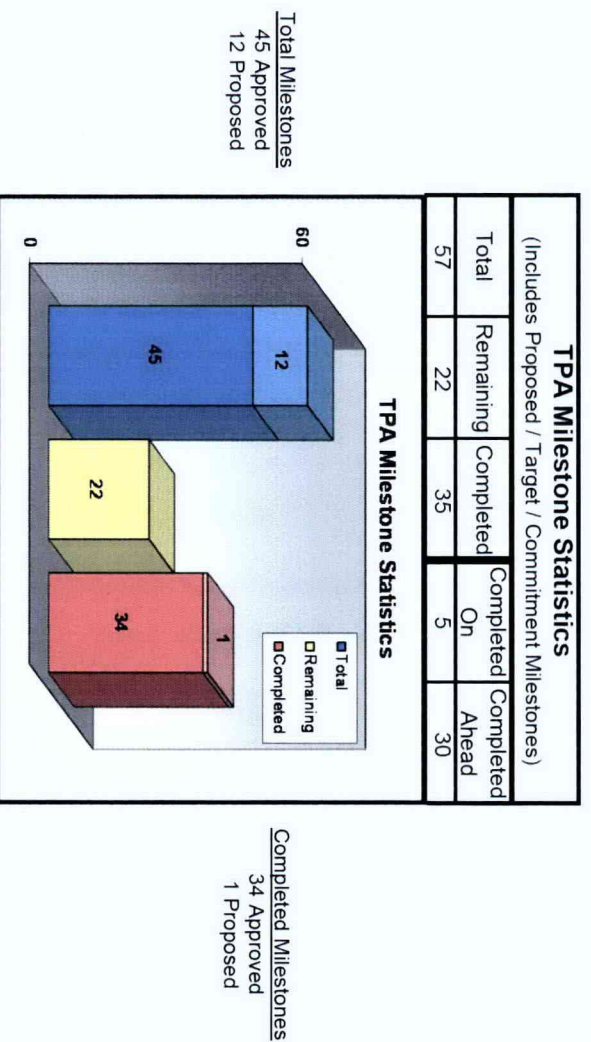
Tri-Party Agreement

U.S. Department of Energy  
U.S. Environmental Protection Agency  
Washington State Department of Ecology

January 17, 2013

*Protecting the Columbia River*





## Quarterly Summary (October - December 2012)

- **Completed TPA Milestone:**
  - P-16-162 – Initiate Operations of In-Situ Bioremediation Systems for UPR-100-N-17 in Accordance with 100-N Area RDR/RAWP (due 12/31/12) - 12/3/12
- **Proposed Change Requests:**
  - M-16-12-06 is being proposed to add new milestones to track continued progress of 100 Area interim remedial actions. The request will also propose new completion dates for site/facility closures that are forecasted to extend beyond the December 31, 2012 milestones (M-16-00A, M-16-55, and M-16-145).
  - M-89-12-02 is being proposed to add a new interim and target milestones and revised completion date for M-89-00.
  - M-94-12-04 is being proposed to add a new interim milestone, and revise description and completion date for M-94-00.
  - Public comment began December 10, 2012 and will complete January 24, 2013 for the above milestone proposed revisions.

# RIVER CORRIDOR CLOSURE PROJECT

For the Radioactive Site - September 2011/12

| TPA MS No. | Compliance Date | Title | Status | Comments |
|------------|-----------------|-------|--------|----------|
|------------|-----------------|-------|--------|----------|

## M-16 Milestones - Remedial Action (milestones through 12/31/2014)

|          |          |   |             |                              |
|----------|----------|---|-------------|------------------------------|
| P-16-162 | 12/31/12 | Initiate Operations of In-Situ Bioremediation Systems for UPR-100-N-17 in Accordance with 100-N Area Remedial Design Report/Remedial Action Work Plan   | Complete    | Milestone completed 12/3/12. |
| P-16-55  | 03/31/13 | Complete Interim Response Actions of Following Waste Sites: 100-N-1, 100-N-3, 100-N-4, 100-N-5, 100-N-13, 100-N-14, 100-N-17, 100-N-18, 100-N-33, 100-N-34, 100-N-45, 100-N-46, 100-N-47, 100-N-50, 100-N-51A, 100-N-51B, 116-N-1, 116-N-3, 120-N-1, 120-N-2, 124-N-4, 600-35, UPR-100-N-11, UPR-100-N-37, Complete 100-N Area Ancillary Facility Removal Actions for Following Facilities: 13N, 105NA, 116N, 117N, 117NVH, 119N, 119NA, 163N, 181N, 181NA, 181NB, 181NE, 184N, 184NA, 184NF, 185N, 1300N, 1304N, 1310N, 1312N, 1313N, 1314N, 1315N, 1316N, 1316NA, 1316NB, 1316NC, 1322N, 1322NA, 1322NB, 1322NC, 1327N, 1605NE, 1701NE, 1703N, 1712N, 1714NB, 1716NE, 1722N, 1802N, 105N & 107N Pipe Trench, 105NE, 107N, 108N, 166N, 182N, 1303N, 1715N, 1900N, 1908N, and 1908NE. | On schedule |                              |
| M-16-139 | 03/31/13 | Complete Revegetation of 300-FF-2 Waste Sites Governed by M-16-62, M-16-64, M-16-74   | On schedule |                              |
| P-16-148 | 03/31/13 | Complete Interim Response Actions for Following 100-IU-2/6 Sites: 600-306, 600-307, 600-308, 600-311, 600-312, 600-314, 600-324, 600-325  | On schedule |                              |
| P-16-158 | 03/31/13 | Complete Interim Response Actions for Following 100-D and 100-H Area Sites: 100-D-8, 118-D-2, 118-D-3, 116-H-5, 126-H-2, 128-H-1, 132-H-3, (Revegetation of 118-D-2, 118-D-3, and 132-H-3 will be deferred to M-16-161 to support remaining waste site remediation activities.)   | On schedule |                              |
| M-16-75  | 09/30/13 | Initiate Substantial and Continuous Remediation on 309 Facility Dedicated Radioactive Liquid Waste Sewer ( 300 RLWS) and 300 Area Process Sewer (300-15) Systems  | On schedule |                              |



# RIVER CORRIDOR CLOSURE PROJECT

For Be Radio October - September 2012

| TPA MS No. | Compliance Date | Title | Status | Comments |
|------------|-----------------|-------|--------|----------|
|------------|-----------------|-------|--------|----------|

## M-16 Milestones - Remedial Action (cont'd) (milestones through 12/31/2014)

|          |          |  |             |  |
|----------|----------|--|-------------|--|
| P-16-145 | 03/31/14 | Complete 100-K Area Interim Response Actions for Following Sites: 128-K-2, 100-K-78, 600-29, 100-K-84, 100-K-86, 100-K-89, 100-K-92, 100-K-87, 100-K-91, 100-K-93, 100-K-95, 100-K-111 and 118-K-1 | On schedule |  |
| P-16-146 | 02/31/14 | Complete 100-B/C Area Interim Response Actions at 100-C-7 and 100-C-7.1 Waste Sites  | On schedule |  |

## M-89 Milestone - 324 Bldg Non-Permitted MW Units Closure

|             |          |  |             |  |
|-------------|----------|--|-------------|--|
| P-89-06-T01 | 09/30/14 | Submit 30% Design of Closure of Mixed Waste Units in 324 Bldg REC B-Cell, REC D-Cell, and High Level Vault and Low Level Vault That Includes a Schedule to Complete the Design | On schedule |  |
|-------------|----------|--|-------------|--|

## M-92 Milestone - 300 Area Special Case Waste

|         |          |  |                   |   |
|---------|----------|--|-------------------|---|
| M-92-16 | 09/30/15 | Complete Removal and Transfer, and Initiate Storage of Phase III 300 Area Special Case Waste and Materials | Ahead of schedule | Expect removal to be completed by summer 2013 |
|---------|----------|--|-------------------|---|

## M-94 Milestones - 300 Area Surplus Facilities Disposition

|         |          |  |             |  |
|---------|----------|--|-------------|--|
| M-94-09 | 09/30/13 | Complete Removal and/or RA for 13 of Following Facilities: 305B, 306E, 306W, 307 Retention Basins, 308, 309, 321, 323, 324, 324B, 326, 327, 329, 333, 340, 340B, 3706, and 3720; to include 323 Facility | On schedule |  |
|---------|----------|--|-------------|--|

## Significant Accomplishments – For Last 3 Months:

### M-16 – Remedial Action / Risk Assessment

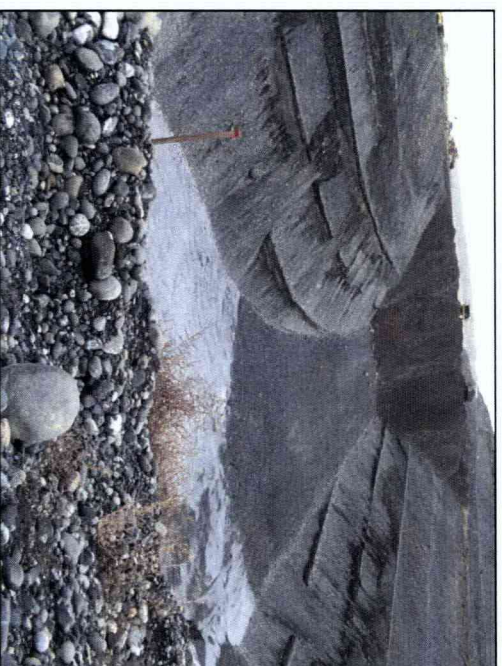
- Restarted 100-C-7.1 remediation activities; started backfill campaign at 100-C-7.
- Awarded 100-D/H Areas subcontract; began remediation at 100-D-100.
- Restarted remediation activities at 100-K Area; started backfill campaign at 118-K-1.
- Completed on-site installation of 100-N Area Phase II in-situ bioremediation system, and initiated operation to meet proposed milestone P-16-162.
- Completed recontouring benches at 181N, 1908NE, and 181NE River Structures.
- Continued remediation of 300-15 north of Apple Street.
- Completed remediation/demolition of 323 Tanks 1, 2, 3, and 4.
- Through December, excavated 514 drums; processed 379; dispositioned 254 from 618-10 Burial Ground.
- Received approval of 19 waste site closure documents during this reporting period.
- Obtained Tri-Party approvals for Rev. 0 of the Columbia River Component Risk Assessment human health risk assessment report (DOE/RL-2010-117, Vol. II).

### M-89 – 324 Bldg Non-Permitted MW Units Closure

- Continued infrastructure evaluations to maintain minimum safe operations of the 324 Complex.

### M-94 – 300 Area Surplus Facilities Disposition

- Completed removal and transportation to ERDF of 308 TRIGA Reactor.
- Completed below-grade demolition/loadout of 310 (TEDF).
- Completed below-grade demolition/loadout of 382 complex.



100-C-7 Backfill



Off-Loading 300 Area TRIGA Reactor in ERDF Cell 9



### ***Significant Accomplishments – For Last 3 Months (cont'd):***

#### **ERDF**

- For period October-December, disposed ~ 238,000 tons of waste; bringing total to ~ 14.5 million tons disposed in ERDF.
- Completed installation of the interim cover liner for Cells 5/6. The soil cover is in progress.
- Began macroencapsulation treatment outside of cells.
- Coordinating ERDF performance assessment with Tank Closure and Waste Management Environmental Impact Statement. Estimating DOE Low-Level Waste Disposal Facility Federal Review Group (LFRG) review beginning in March 2013.



Installing Interim Cover Liner Panel Over Cells 5/6

### ***Significant Actions Planned – For Next 3 Months:***

#### **M-16 – Remedial Action / Risk Assessment**

- Complete backfill campaign at 100-C-7.
- Restart remediation campaign at 100-IU-2/6 Areas.
- Complete backfill at 118-K-1 except for trench N.
- Resume excavation of 618-10 non-concreted drums.
- Complete backfill/revegetation of 300-15 north of Apple Street in accordance with M-16-139.

#### **M-89 – 324 Bldg Non-Permitted Mixed Waste Units Closure**

- Maintain min-safe conditions until path forward is determined for remediation of 300-296 waste site under B-Cell.

#### **M-94 – 300 Area Surplus Facilities Disposition**

- Complete below-grade demolition/loadout of 308A Fuels Development Laboratory Annex.
- Complete remediation, loadout, and backfill of soil adjacent to 327 building footprint.

#### **ERDF**

- Receive and treat B Reactor lead-contaminated sediment.

**PERFORMANCE SUMMARY**

Contract Inception (8/27/05) through December 2012  
(\$K)

|                          | IPB              |                  |                  | CUMULATIVE       |                  |                   | Previous Quarter Comparison |                |                |     |
|--------------------------|------------------|------------------|------------------|------------------|------------------|-------------------|-----------------------------|----------------|----------------|-----|
|                          | BAC              | EAC              | BCWS             | BCWP             | ACWP             | SCHEDULE VAR (\$) | Sep                         | Dec            | Sep            | Dec |
| D4                       | 608,293          | 556,063          | 560,600          | 555,181          | 444,279          | 17,448            | -5,419                      | 83,405         | 110,902        |     |
| Reactor ISS              | 75,883           | 81,037           | 75,353           | 74,395           | 80,378           | -856              | -958                        | -5,802         | -5,982         |     |
| Field Remediation        | 795,769          | 858,204          | 635,270          | 624,703          | 574,307          | -11,186           | -10,568                     | 31,741         | 50,396         |     |
| Waste Operations         | 558,920          | 455,342          | 423,302          | 487,404          | 380,024          | 68,615            | 64,102                      | 108,152        | 107,380        |     |
| ESFC                     | 75,142           | 62,799           | 67,980           | 65,197           | 54,285           | -1,162            | -2,783                      | 10,770         | 10,912         |     |
| Mission/General Support  | 354,243          | 366,057          | 330,904          | 330,904          | 282,175          | 0                 | 0                           | 36,804         | 48,729         |     |
| Transition               | 3,979            | 3,747            | 3,979            | 3,979            | 3,747            | 0                 | 0                           | 232            | 232            |     |
| Contingency              | 0                | 0                |                  |                  |                  |                   |                             |                |                |     |
| <b>TARGET COST TOTAL</b> | <b>2,472,230</b> | <b>2,383,249</b> | <b>2,097,389</b> | <b>2,141,763</b> | <b>1,819,195</b> | <b>72,860</b>     | <b>44,374</b>               | <b>265,304</b> | <b>322,568</b> |     |

**Schedule Variance (PMB): \$44,374K**

- ERDF transportation, treatment, and disposal support to accelerated work in FR and D4 Projects.
- Variance associated with remediation delays at 100-D, 100-N, and remaining waste sites around 309 building.

**Cost Variance (PMB): \$322,568K**

- Significant underruns experienced in 300 Area building characterization, deactivation, and demolition activities.
- 100-B/C, 100-D, 100-F, and 100-IU-2/6 remediation underruns. Partially offset by project support costs at all active dig sites.
- Costs have been less than planned due to Waste Operations efficiencies achieved in waste treatment, transportation, and construction.

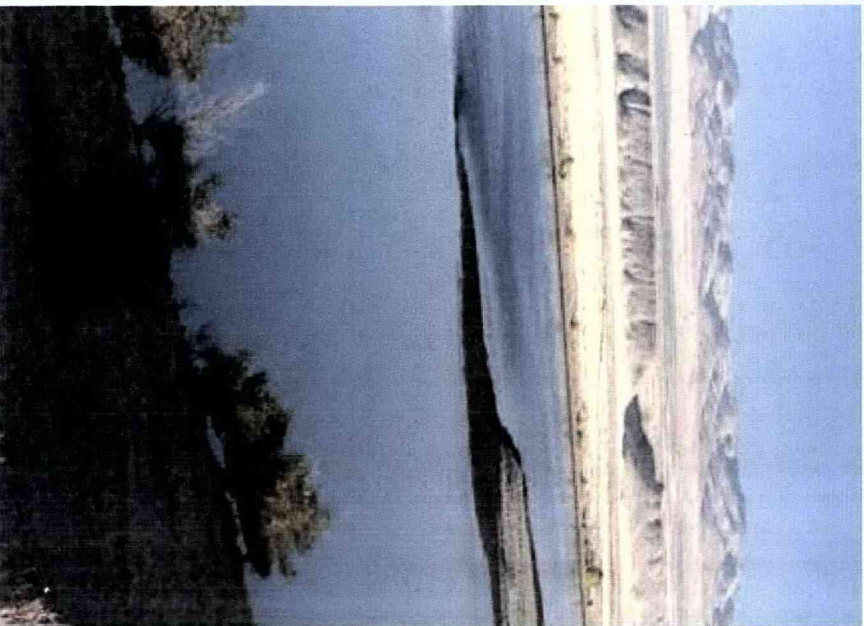


## ***RCC Issues***

### **100 Area**

- **Issue:** DOE formally submitted a No Action WSRF and RSVP for 100-D clean water pipelines to Ecology requesting approval. RL is working with Ecology to resolve comments on the closure document. If comments are not resolved, the issues will be raised to the Project Manager level for further resolution/discussion.

**Status:** Awaiting Ecology comments (due the week of January 13, so they may be received before the meeting).



# 100K Soil Remediation, D4, ISS, & Sludge Treatment Project

## *TPA Milestone Series: M-016 and M-093*

U.S. Department of Energy  
U.S. Environmental Protection Agency  
State of Washington, Department of Ecology

First Quarter FY2013  
January 17, 2012



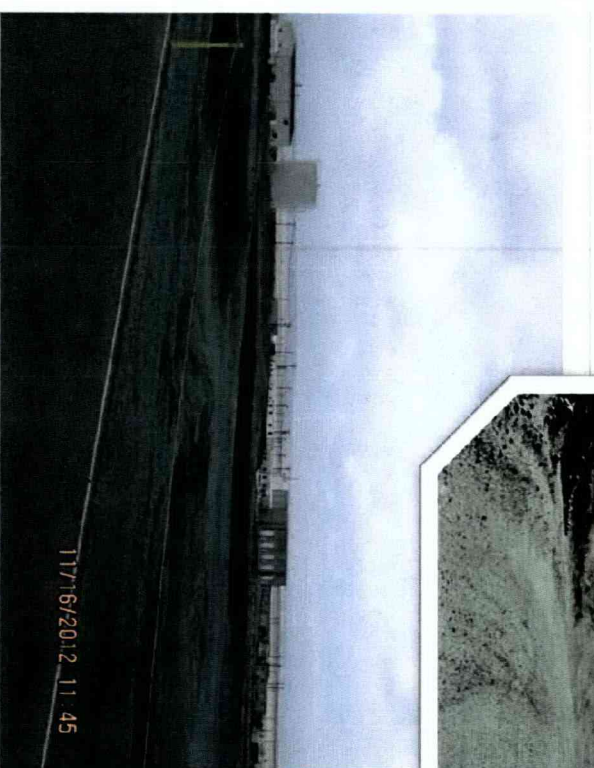
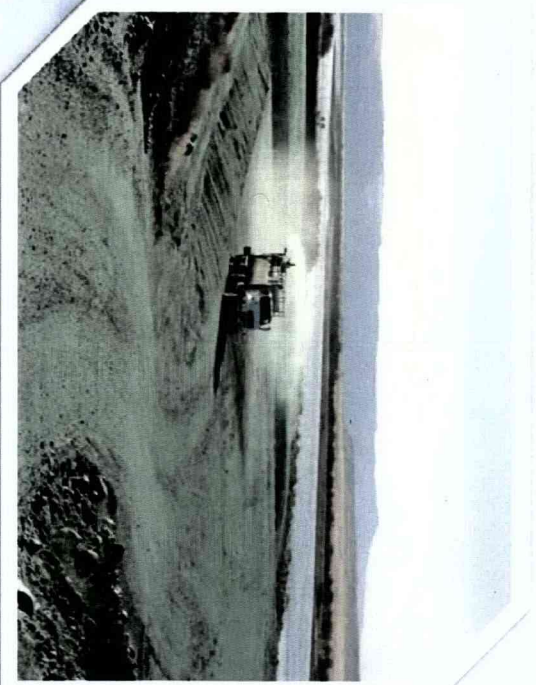
# Accomplishments – 1<sup>st</sup> Quarter 2013

**Completed Milestones:**  
**M-016-53 – Complete**  
**Interim Response Actions**  
**for the 100 K Area within**  
**the perimeter boundary**  
**& to the river for**  
**Phase 1 Actions**

*Interim revegetation of*  
*remediated Phase 1 waste*  
*sites completed in*  
*November.*

**Due: 12/30/2012**

**Completed: 11/20/2012**



11/16/2012 11:45

**100-K-63 &  
Area AA  
Revegetation**



# Accomplishments – 1<sup>st</sup> Quarter 2013

## Sludge Treatment Project Phase 1- Removal of Containerized Sludge

- **Complete Final Design of Sludge Retrieval & Transfer System (M-016-174, due 9/30/13)**
  - *Continued preparation for the Integrated Process Optimization Demonstration (IPOD) testing of the ECRTS process system at the Maintenance and Storage Facility (MASF).*
  - *Initiated disposition of design improvement comments from the formal design review of the ECRTS final design.*
  - *Initiated preparation of the ECRTS Preliminary Documented Safety Analysis (PDSA).*





# Accomplishments – 1<sup>st</sup> Quarter 2013

## Sludge Treatment Project Phase 1- Removal of Containerized Sludge (cont.)

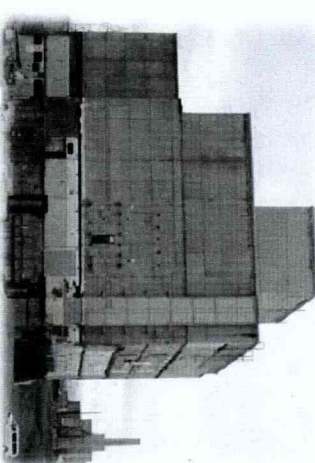
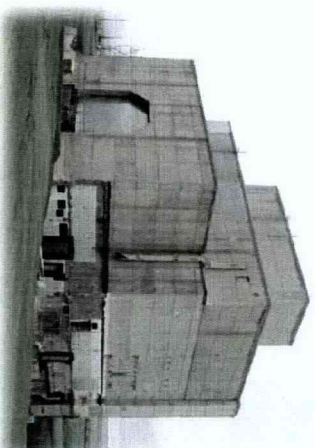
- **Begin Sludge Removal from 105-KW Fuel Storage Basin (M-016-175, due 9/30/14)**
  - Completed KW Basin Modified Annex building concrete footings in November.
  - A stand-down on quality-affecting work was initiated by the Annex construction contractor on December 4, 2012. Work restarted the week of January 7, 2013 and will be released in a phased approach as validations are completed.
  - Initiated transition of Cold Vacuum Drying Facility (CVDf) from a processing nuclear facility to a non-nuclear maintenance support facility.



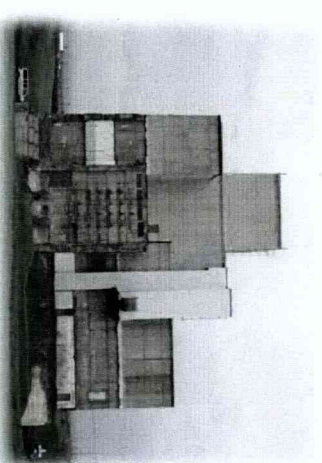
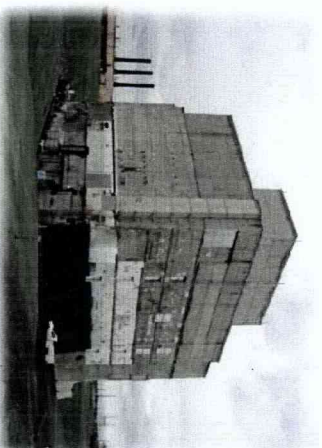
# Accomplishments – 1<sup>st</sup> Quarter 2013

## 105KE Reactor Interim Safe Storage

- Completed construction of all 34 below-grade concrete pourbacks
- Completed hazardous and combustible material removal from the reactor building interior
- Completed closure of all above-ground exterior openings in the reactor building



105-KE Reactor Building

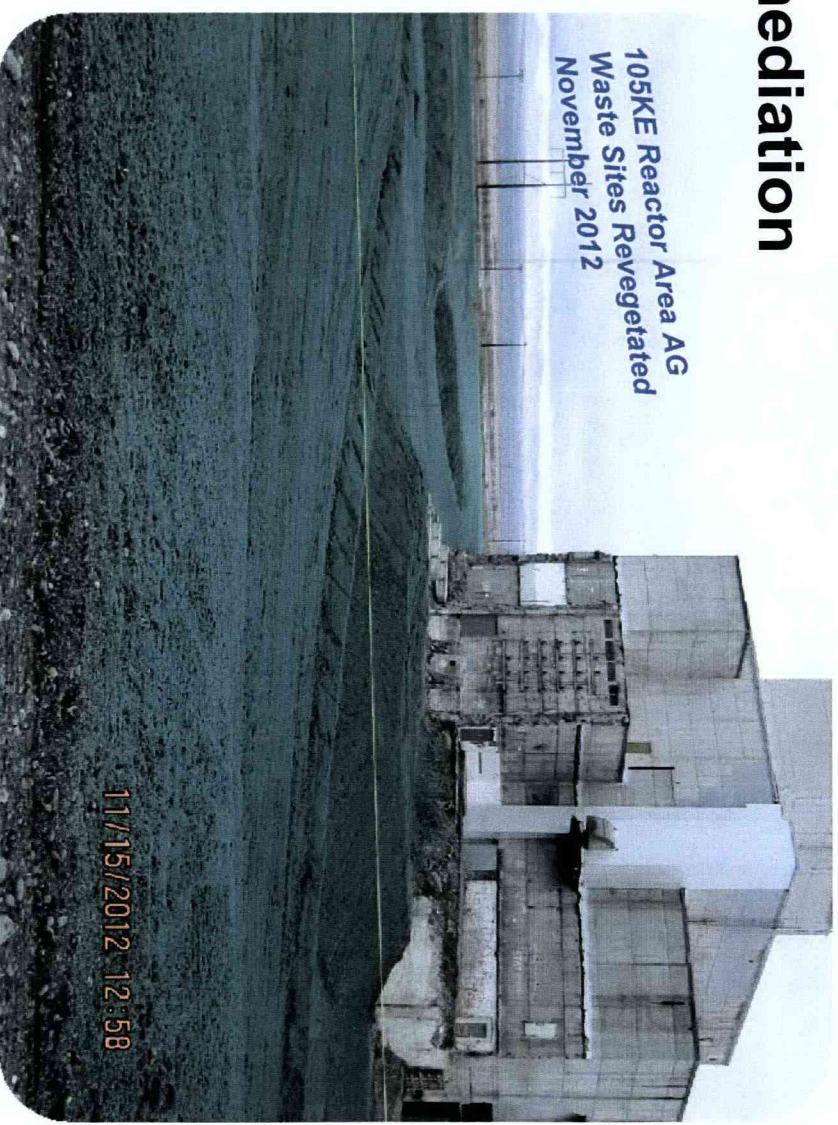




# Accomplishments – 1<sup>st</sup> Quarter 2013

## 100K Waste Site Remediation

- *Revegetation of Phase 1 Waste Sites completed six weeks ahead of schedule; TPA Milestone M-016-53 complete*
- *Completed DQO workshop for characterization of UPR-100-K-1 waste site vadose zone*





# Accomplishments – 1<sup>st</sup> Quarter 2013

## 100K D4 Activities

- Continued 105-KE Interim Safe Storage (ISS) activities
- Obtained RL concurrence for Removal Action Reports for 182-K and 1724-KB (Phase 2 facilities) and 1908-KE (Phase 3 facility)



105-KE Aerial View





# Milestone Status

| TPA Number | Due Date | Description   | Status           |
|------------|----------|---|------------------|
| M-016-53   | 12/31/12 | Complete Interim Response Actions for the 100 K Area Within the Perimeter boundary and to the River for Phase 1 Actions     | Complete         |
| M-016-174  | 09/30/13 | Complete Final Design of Sludge Retrieval and Transfer System   | On Schedule      |
| M-093-22   | 07/31/14 | Complete 105KE Reactor Interim Safe Storage in Accordance with Remedial Design/Remedial Action Work Plan                    | In Renegotiation |
| M-016-175  | 09/30/14 | Begin Sludge Removal from 105-KW Fuel Storage Basin   | At Risk          |
| M-016-173  | 03/31/15 | Select K Basin Sludge Treatment and Packaging Technology and Propose New Interim Sludge Treatment and Packaging Milestones  | At Risk          |
| M-016-143  | 12/31/15 | Complete the Interim Response Actions for the 100 K Area Within the Perimeter Boundary and to the River for Phase 2 Actions | At Risk          |
| M-016-176  | 12/31/15 | Complete Sludge Removal from 105-KW Fuel Storage Basin  | At Risk          |
| M-016-178  | 12/31/15 | Initiate Deactivation for 105-KW Fuel Storage Basin   | At Risk          |
| M-093-26   | 12/31/15 | Initiate 105-KW Reactor Interim Safe Storage  | In Renegotiation |
| M-016-181  | 09/30/19 | Complete Deactivation, Demolition and Removal of 105-KW Fuel Storage Basin  | At Risk          |
| M-016-186  | 12/31/19 | Initiate Soil Remediation Under 105-KW Fuel Storage Basin   | At Risk          |
| M-093-27   | 12/31/19 | Complete 105-KW Reactor Interim Safe Storage  | In Renegotiation |
| M-016-00C  | 12/31/20 | Complete All Response Actions in the 100 K Area   | At Risk          |



# Project Baseline Performance

## Contract to date through December 2012

| RL-0041<br>Nuclear Facility D&D -<br>River Corridor | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Cost<br>Variance<br>(\$) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) | SPI  | CPI  |
|---|--|--|--|------------------------------|--------------------------|----------------------------------|------------------------------------|------------------------------------|------|------|
| ARRA RL-0041<br>Capital Asset                       | 179.7                                    | 179.7                                    | 181.3                                  | 0.0                          | -1.6                     | 179.8                            | 181.3                              | -0.9                               | 1.00 | 0.99 |
| Base  | 114.8                                    | 116.7                                    | 95.6                                   | 1.9                          | 21.1                     | 287.7                            | 270.6                              | 17.2                               | 1.02 | 1.22 |
| Total   | 294.6                                    | 296.4                                    | 276.9                                  | 1.9                          | 19.5                     | 467.5                            | 451.9                              | 15.6                               | 1.01 | 1.07 |

| RL-0012<br>Spent Nuclear Fuel<br>Stabilization and Disposal | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Cost<br>Variance<br>(\$) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) | SPI  | CPI  |
|---|--|--|--|------------------------------|--------------------------|----------------------------------|------------------------------------|------------------------------------|------|------|
| Base Total  | 348.1                                    | 342.5                                    | 341.9                                  | -5.6                         | 0.6                      | 605.9                            | 603.4                              | 2.5                                | 0.98 | 1.00 |

Numbers are rounded to the nearest \$0.1M.





# Planned Activities

Next 6 months

## 105KE Reactor Interim Safe Storage

- *Implement the FHC*
- *Backfill structures as funding permits*
- *Perform exterior and interior surveillances of the reactor building*

## D4

- *Backfill structures as funding permits*

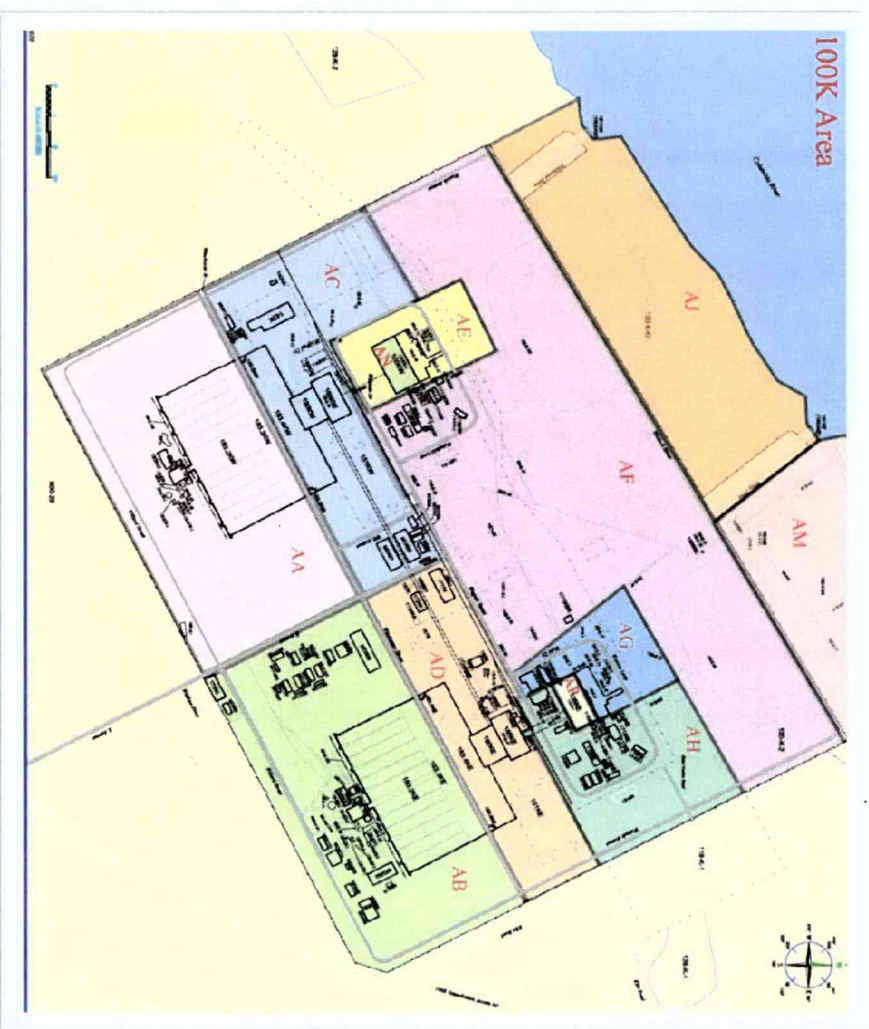


# Planned Activities

Next 6 months

## Waste Site Remediation

- Complete DQO documentation and Sampling Instruction for characterization of waste site UPR-100-K-1
- Reclassify 100-K-106 Phase 2 waste site to Interim Closed
- Initiate drilling activities associated with KE characterization boreholes as funding permits
- Remediate waste sites near the 183-KE Head House as funding permits





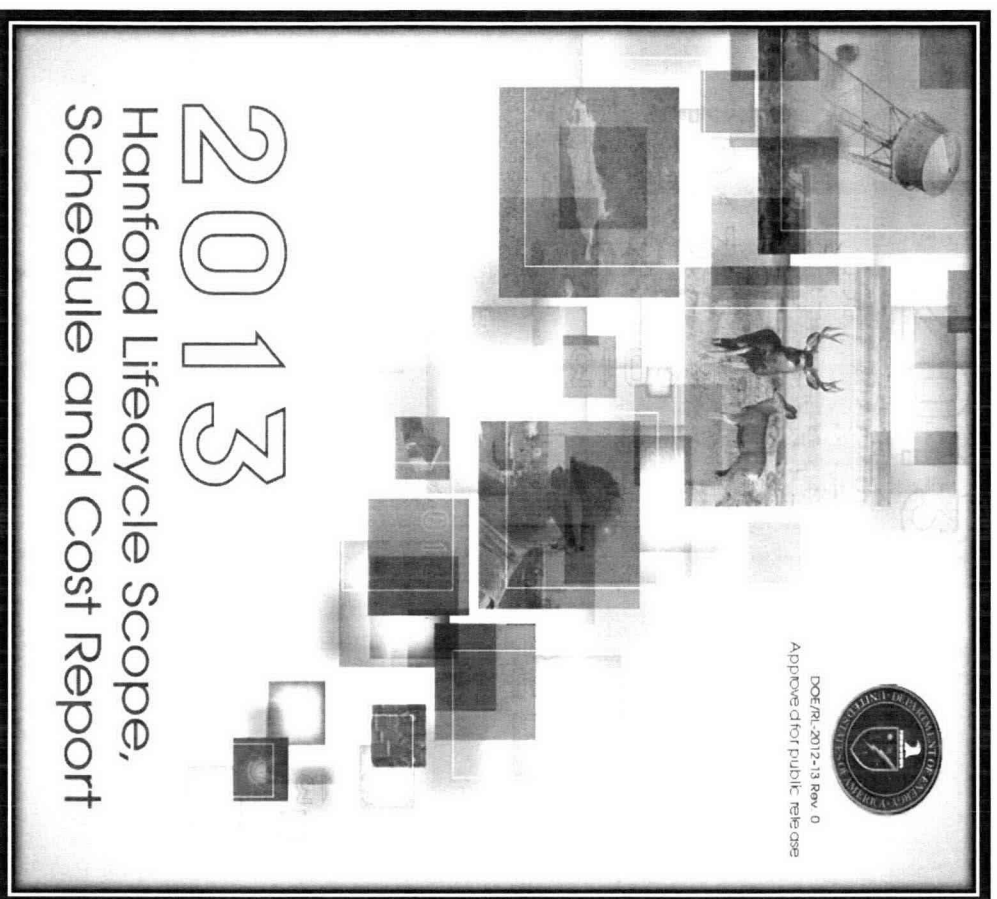
# Planned Activities

Next 6 months

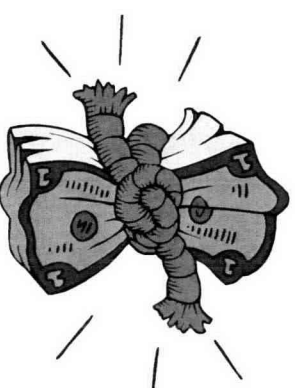
## Sludge Treatment Project

- **KW Fuel Storage Basin Modified Annex Construction**
  - *Complete construction of the Annex structure (concrete and steel).*
  - *Initiate installation of the Annex building support systems.*
- **Engineered Container Retrieval and Transfer System (ECRTS)**
  - *Submit the ECRTS 90% design Remedial Design Report (RDR) to EPA for approval*
  - *Submit the ECRTS Preliminary Documented Safety Analysis (PDSA) to DOE for approval.*
  - *Submit the ECRTS CD-2/3 process design package to DOE for approval.*
  - *Perform Integrated Process Optimization Demonstration testing.*
- **Continue transition of the Cold Vacuum Drying Facility (CVDf) to a non-nuclear maintenance support facility.**





## Hanford Lifecycle Scope, Schedule and Cost Report



**TPA Milestone: M-036-01C**  
**Quarterly Performance Report**  
**October - December, 2012**

Stephen Korenkiewicz, DOE-RL  
 Lifecycle Report Project Manager  
 January 17, 2013



In-Party Agreement



## MILESTONE DESCRIPTION AND DELIVERABLE



1. The U.S. Department of Energy (DOE) shall prepare and submit to the U.S. Environmental Protection Agency (EPA) and Washington State Department of Ecology (Ecology) a report setting out the lifecycle scope, schedule and cost for completion of the Hanford Site cleanup mission.

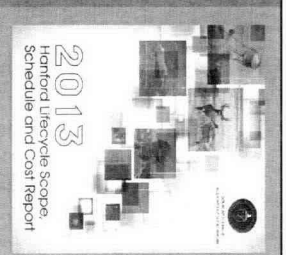
2. The initial Hanford Lifecycle Scope, Schedule and Cost Report (Lifecycle Report) was submitted to DOE on July 25, 2011, and subsequent reports are due January 31 of each year. The 2013 Lifecycle Report is the third Lifecycle Report to be prepared.



Tri-Party Agreement



# RL PROGRAM MANAGERS' ASSESSMENT OF CONTRACTOR PERFORMANCE

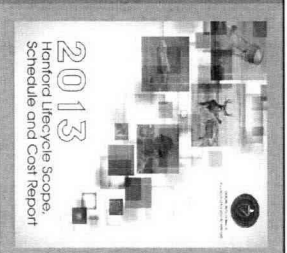


1. The contractor responsible for the Lifecycle Report is Mission Support Alliance, Portfolio Management.
2. There are no performance issues related to development and preparation of the 2013 Lifecycle Report.





## SIGNIFICANT ACCOMPLISHMENTS FOR THE LAST THREE MONTHS



1. Completed incorporation of comments into the Final 2013 Lifecycle Report which was delivered to DOE on December 17, 2012.
2. Reviewed cost changes between the 2012 and 2013 Lifecycle Reports and candidates for the alternatives analysis in the 2014 Lifecycle Report at the October 4, 2012, Project Manager Meeting (PMM).
3. Continued review of candidates for the alternatives analysis in the 2014 Lifecycle Report at a meeting of the TPA Milestone Managers on November 29, 2012.



## SIGNIFICANT PLANNED ACTIONS FOR THE NEXT SIX MONTHS



1. DOE will submit the 2013 Lifecycle Report to EPA and Ecology by January 31, 2013.
2. A Fact Sheet and Listserv notice will be issued by the three parties when the 2013 Lifecycle Report is posted on [www.Hanford.gov](http://www.Hanford.gov) in February 2013.
3. DOE, EPA and Ecology will identify the alternatives analysis candidates and approach to be included in the 2014 Lifecycle Report in January 2013.



## OTHER SIGNIFICANT ISSUES



### BUDGET/COST STATUS

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No major issues identified.

### ISSUES

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No major issues identified.

### NON-TPA REGULATORY ISSUES/POTENTIAL IMPACTS TO TPA

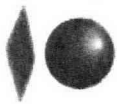
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No major issues identified.



Tri-Party Agreement



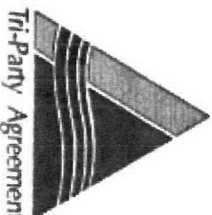


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# PFP Closure Project

TPA Milestone: M-083



Larry Romine, Federal Project Director  
Rick Bond, Ecology Project Manager

1st Quarter 2013  
Jan 17, 2013



**U.S. DEPARTMENT OF  
ENERGY**

*One Culture. One Team.*



# Quarterly Milestone Summary

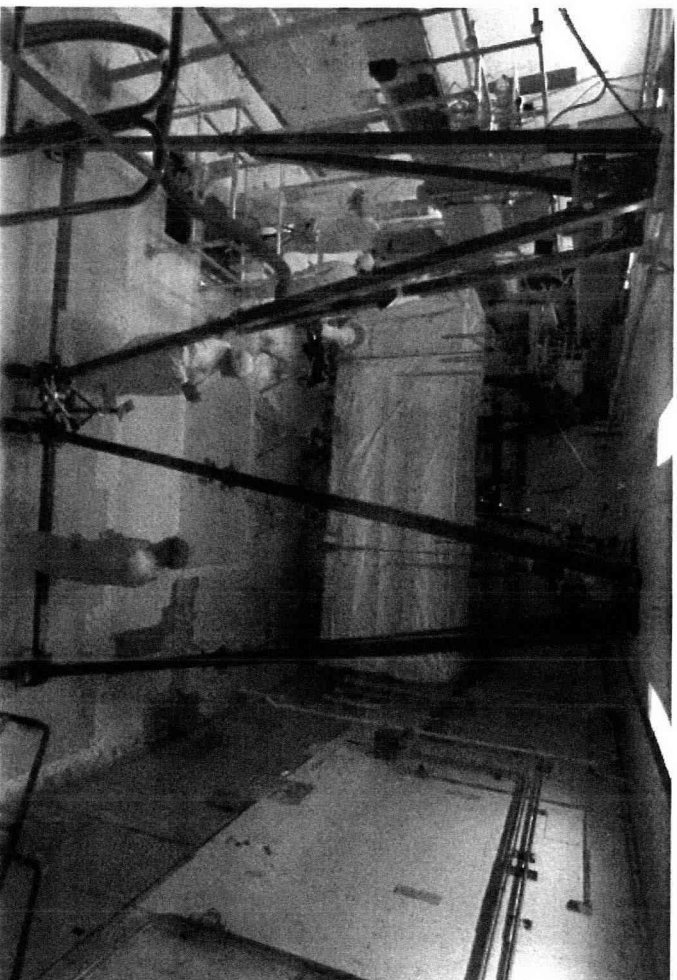
(October 2012 – December 2013)

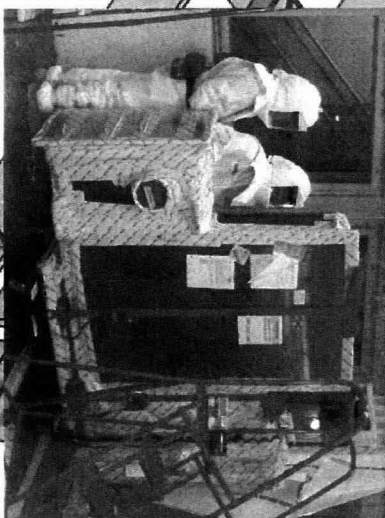
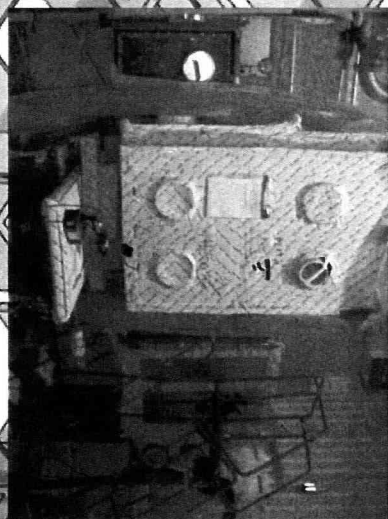
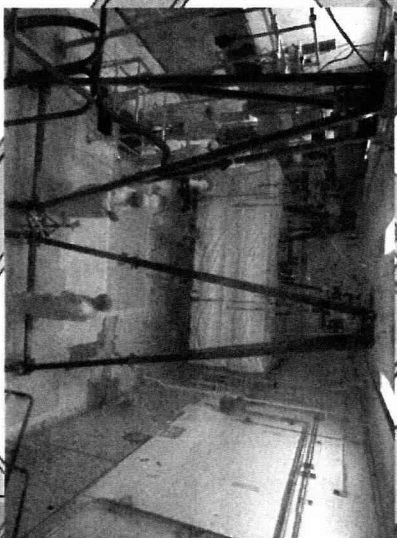
| TPA Milestone | Due Date | Status      | Milestone Description   |
|---------------|----------|-------------|---|
| M-083-24-T01  | 09/30/16 | On Schedule | Submit Rv. 0 of the PFP Complex S&M Plan to Ecology   |
| M-083-44      | 09/30/15 | In Jeopardy | Complete transition of 234-5Z & -ZA, 243-Z, 291-Z and 291-Z-1 buildings to support PFP decommissioning deactivate and prepare for dismantlement of the above grade portions of these facilities |
| M-083-00A     | 09/30/16 | On Schedule | Complete PFP Facility Transition & Selected Disposition Activities  |

# Accomplishments – 1st Quarter

- Completed removal of 183 of 238 Gloveboxes (77%)
- Continued RMA/RMC Glovebox deactivation activities:
  - Removed 3 three gloveboxes from RMA/RMC in last 3 months
  - Removed external components necessary to facilitate removal of 8 gloveboxes in Rm 235A-2.
  - Completed GB HA-9A mechanical isolation
- Completed size reduction of fifteen more pencil tanks units for a total of 110 thru 01/08/13. 86 remaining. Completed second repair job for the PRF Canyon Crane vertical lift capability in early January.
- Recovered from Chemical leaks in Rooms 262 & 264

Lower Section of HA-23S being Readied for Placement on Movers October 15, 2012







# Accomplishments – 1<sup>st</sup> Quarter



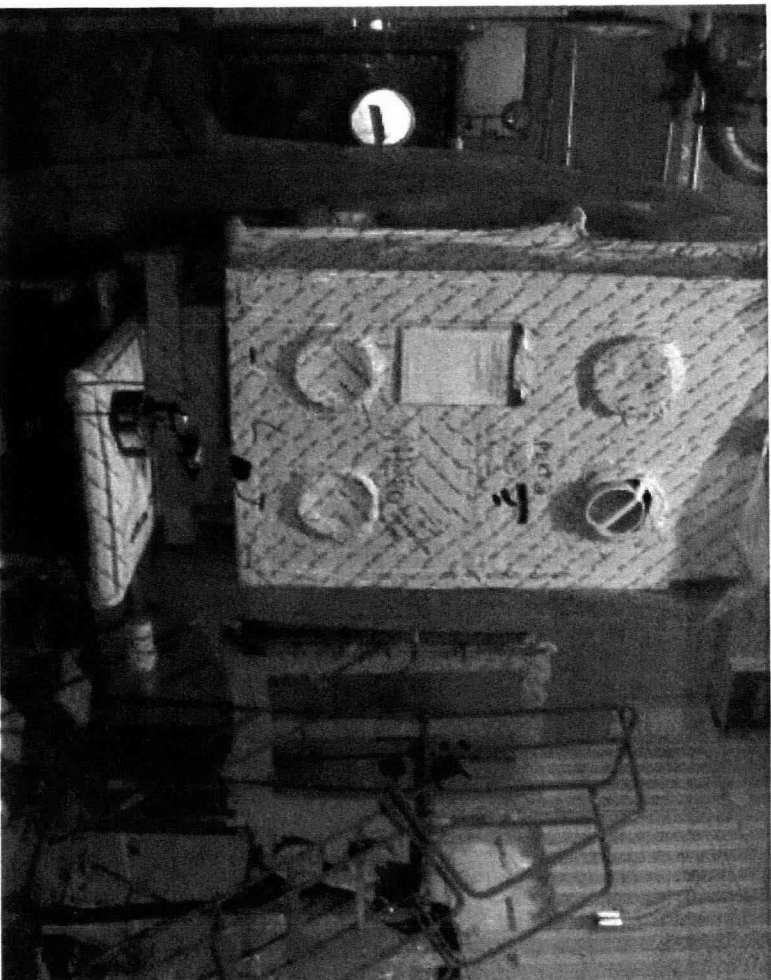
Chemical Leak Location Room 262



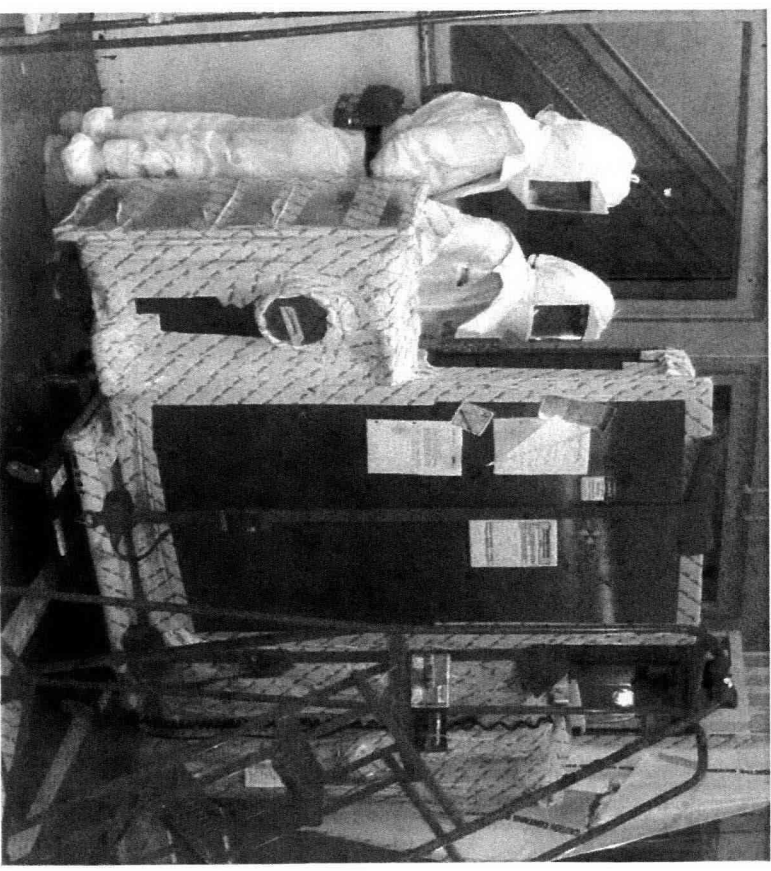
Spill Recovery Location Room 262

# Accomplishments – 1<sup>st</sup> Quarter cont'd:

Room 228B GB HC-13MD Removed October 11, 2012



Room 228B Conveyor HC-1D Removed October 31, 2012



# Accomplishments – 1<sup>st</sup> Quarter Cont'd:

- Removed 301 feet of asbestos insulation in the duct level for a total of 17,272 feet removed (72% of the total 24,000ft.)
- Continued disposition of Process Vacuum System Piping (36%; 2,490ft. of 6,987 ft.) & Process Transfer Lines (67%; 775ft. of 1,154 ft.)
- Performed required min-safe inspections, surveillances and maintenance activities
- Completed repair of Exhaust Fan 3
- Loaded Glove boxes HC-12S & HC-13MD in SLB2s
- Shipped 4 SWBs containing HC-21A from PFNW to CWC
- Loaded pencil tanks 38, 39 & 40 in SWBs



# Project Baseline Performance

Contract to-Date (through December 2012)

| RL-0011<br>Nuclear Material<br>Stabilization and<br>Disposal | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|--|--|--|--|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| Total  | \$559,751.5                              | \$551,819.9                              | \$565,057.6 (\$7,931.6)                |                              | -1.4%                       | (\$13,237.7)             | -2.3%                   | \$940,254.5                      | \$953,492.2                        | (\$13,237.7)                       |
| ARRA   | \$287,892                                | \$287,892                                | \$297,624                              | 0                            | 0%                          | (\$9,733)                | -3.3%                   | \$287,892                        | \$297,624                          | (\$9,733)                          |
| Base   | \$271,860                                | \$263,928.4                              | \$267,434 (\$7,931.6)                  |                              | -1.4%                       | (\$3,505.6)              | -1.3%                   | \$652,363                        | \$655,868.6                        | (\$3,505.6)                        |



# Issues/Challenges

## Non-Regulatory Issues:

- Remaining gloveboxes are significantly more difficult to remove than planned.
- Equipment failures associated with aging building systems/components (e.g. PRF crane, exhaust fans) impacting D&D
- Utilization of current resources/staff productivity
- Staff retention; layoffs/bump and roll; CBA negotiations
- FY-13/14 Budgets to sustain PMB
- Continue efforts to identify alternate approaches to achieve efficiencies and cost & schedule savings (achieve VE goals)
- Open Air Demo vs. Containment Structure



# Planned Activities

Next 3 months

## Safe & Compliant

- Complete replacements in Filter Rooms 309,313, & 314.
- Complete replacement of pillow blocks and bearings on EF 4 & 5
- Continue maintenance actions on Supply Fans, including replacement of belts/sheaves on Supply Fan #3

## Disposition Solid Waste

- Load and ship GB HC-1C, HC-1D
- Remove, load, and ship Room 159 H-1 and H-2 hoods
- Load and ship pencil tanks 126 & 127

## 234-5Z RMA/RMC Lines

- Complete external mechanical isolation work on HA-9A and remove/replace exhaust filters (high dose job)
- Complete separation activities of GBs HC-15A, HC-15B, HC-15C, and HC-1E and stage in Room 228B
- Complete removal activities for the eight Room 235A-2 gloveboxes

## Balance of 234-5Z

- Continue asbestos abatement, process transfer line removal, and process vacuum line removal

## 236-Z PRF

- Size reduce pencil tanks 126 & 127, 38(failed), and 16
- Complete work package for mechanical isolation of MT-4, MT-5, and MT-6 gloveboxes



# **Solid Waste Stabilization and Disposition Project RL-13 Milestone Review M-091/M-026/M-016**

**First Quarter FY2013  
January 17, 2013**



***E*  
M Environmental Management**

**safety ❖ performance ❖ cleanup ❖ closure**

**[www.em.doe.gov](http://www.em.doe.gov)**

## **Accomplishments – 1<sup>st</sup> Quarter 2013**

### **Completed TPA Milestones**

- M-091-44Z-003, Annual PMM or Quarterly Notification of Contact Handled/Remote Handled TRUM, certification in lieu of treatment.
- M-091-44P, Designate of all RH TRUM and large containers of CH TRUM currently in above ground storage as of June 30, 2003.
- M-091-40L-036, Submit July – September 4<sup>th</sup> Quarter FY12 Burial Ground Results.
- M-016-93B, Submit Implementation Work Plan to Prepare TRU/TRUM Waste.

Submitted Response to Ecology's comments on the Waste Project Management Plan (required by M-091-03F)



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## Milestone Status

- M-026-01 Land Disposal Restrictions Report – DOE submitted response to comments on the report for 2011 on 10/26/12
- M-091-40 Retrievably Stored Waste (CH) – Complete the retrieval and designation of CH Retrievable Stored Waste in burial grounds by 09/30/2016
  - Target: Retrieve 250 m<sup>3</sup> by 09/30/13 – No waste to be retrieved in FY13
- M-091-41 Retrievably Stored Waste (RH) – Complete non-caisson retrieval by 09/30/16 – No waste to be retrieved in FY13
- M-091-42 MLLW (CH, small container) – Complete treatment by 09/30/17
  - No M-091-42 waste to be treated in FY13
  - 25 m<sup>3</sup> in aboveground storage



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## Milestone Status

- M-091-43 MLLW (RH and large container) – Complete treatment by 09/30/17
  - No M-091-43 waste to be treated in FY13
  - 42 m<sup>3</sup> in aboveground storage
- M-091-44S TRUM Waste (RH and large container) – Certify 300 m<sup>3</sup> by 09/30/18
  - M-091-44Q (2016) and M-091-44R (2017) - Completed previously
  - No waste to be repackaged into a WIPP-certifiable waste form in FY13
  - 7,077 m<sup>3</sup> in aboveground storage (includes newly generated waste)
- M-091-46 TRUM waste (CH, small container) – Complete the certification of small CH TRUM waste.
  - Target: Certify 125 m<sup>3</sup> by 09/30/13 – No waste to be repackaged into a certifiable waste form in FY13
  - 1,802 m<sup>3</sup> in aboveground storage (includes newly generated waste)



***EM*** Environmental Management

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# Department of Energy – Richland Operations Office

## Project Baseline Performance

Contract to Date through December 2012

Dollars in Thousands

| Title  | Budgeted Cost<br>of Work<br>Scheduled | Budgeted Cost<br>of Work<br>Performed | Actual Cost of<br>Work<br>Performed | Schedule<br>Variance | Cost Variance |
|--|---------------------------------------|---------------------------------------|-------------------------------------|----------------------|---------------|
| Central Waste Complex                            | 38,202.9                              | 38,202.9                              | 37,089.2                            | 0.0%                 | 2.9%          |
| Waste Receiving and Packaging<br>Facility (WRAP) | 29,471.2                              | 29,471.2                              | 32,300.7                            | 0.0%                 | -9.6%         |
| T Plant  | 48,046.6                              | 48,046.6                              | 43,614.2                            | 0.0%                 | 9.2%          |
| MLW Treatment                                    | 43,182.5                              | 43,182.5                              | 37,190.6                            | 0.0%                 | 13.9%         |
| TRU Waste Retrieval                              | 99,991.6                              | 99,991.6                              | 112,269.2                           | 0.0%                 | -12.3%        |
| TRU Waste Repackaging                            | 45,739.4                              | 45,739.4                              | 42,187.6                            | 0.0%                 | 7.8%          |
| TRU Waste Disposition                            | 30,934.4                              | 30,934.4                              | 22,345.0                            | 0.0%                 | 27.8%         |
| Project Management                               | 74,026.5                              | 74,026.5                              | 72,975.0                            | 0.0%                 | 1.4%          |



**EM Environmental Management**

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[www.em.doe.gov](http://www.em.doe.gov)

### Actions Planned for Next Six Months

- Complete WRAP and LLBGs lay up work (e.g., move waste to the Central Waste Complex, clean up or stabilize remaining contamination areas, move equipment and supplies to storage, maintain ventilation and fire protection, document facility conditions)
- Support permitting activities
- Continue to work with Ecology on the Agreed Order and permit issues.
- Submit Quarterly Burial Ground Sampling Results
- Submit Tritium Treatment Technology Development Report by 3/31/2013
- Submit Annual Hanford Land Disposal Restrictions Report for 2012 by 4/30/2013
- Submit Annual Revision of TRUM and MLLW PMP to Ecology by 6/30/2013



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# Central Plateau Remediation Project RL-40 Milestone Review M-016-00, M-085-00

U.S. Department of Energy  
U.S. Environmental Protection Agency  
State of Washington, Department of Ecology

First Quarter FY2013  
January 17, 2013



**U.S. DEPARTMENT OF  
ENERGY**



**CH2MHILL**  
Plateau Remediation Company

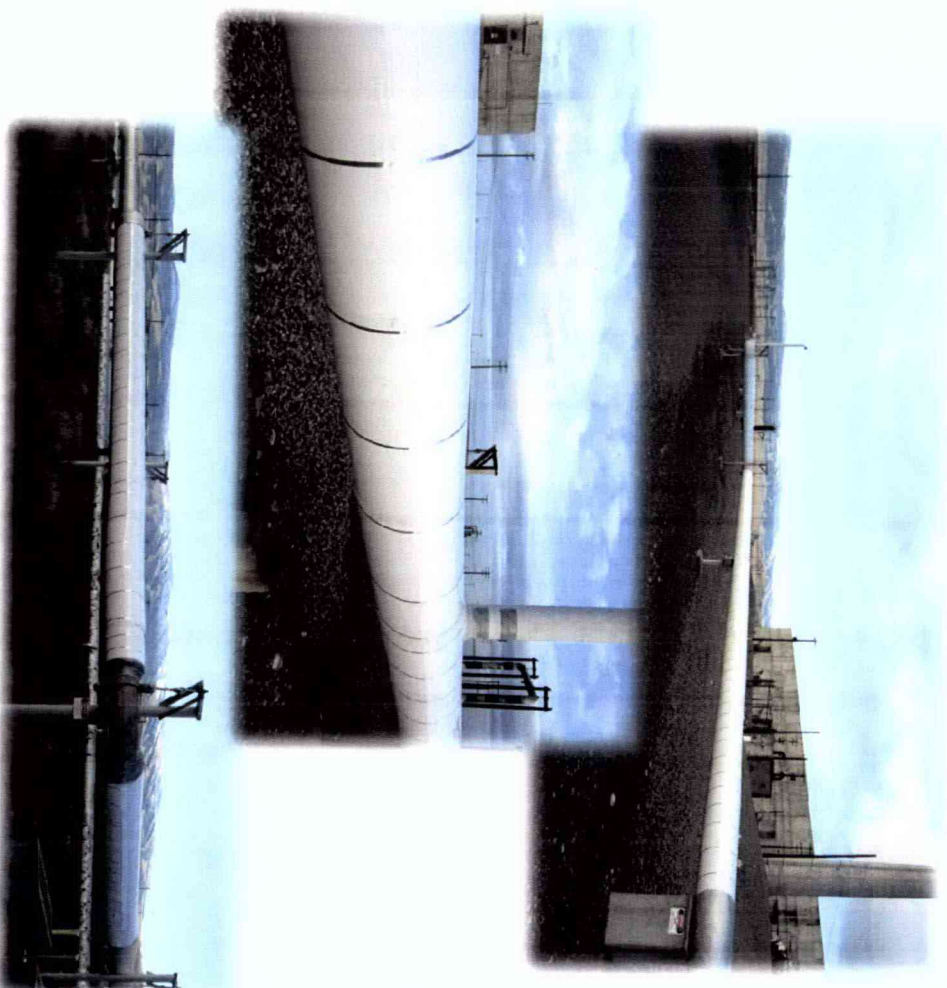
# Accomplishments –1<sup>st</sup> Quarter 2013

## TPA Milestones

- *None completed during 1<sup>st</sup> Quarter 2013*

## Complete ARRA Asbestos Abatement Project

- Jacketed approximately 720 linear feet of steam line on the east side of U Plant in the 200W Area
- Jacketed approximately 50 linear feet on the south side of the 284W Power House in the 200W Area



Plateau Remediation Company



# Milestone Status

| TPA Number  | Milestone Due Date | Milestone Title   | Status            |
|---|--------------------|---|-------------------|
| <b>M-085-00 RL 40 – Complete Response Actions for the Canyon Facilities/Associated Past Practice Waste Sites, other Tier 1 CP Facilities not covered by existing milestones, and Tier 2 CP Facilities</b> |                    |   |                   |
| M-085-01*   | 03/30/13           | Submit Change Package to establish date for major Milestone M-85-00   | UNDER NEGOTIATION |
| M-085-10A*  | 6/30/14            | Submit RI/FS Work Plan for the 200-CB-1 OU (B Plant Canyon/associated past practice waste sites) to Ecology.  | UNDER NEGOTIATION |
| M-085-20A*  | 9/30/15            | Submit RI/FS Work Plan for the 200-CP-1 OU (PUREX Canyon/associated past practice waste sites) to Ecology.  | UNDER NEGOTIATION |
| M-085-30A*  | 12/31/17           | Submit RI/FS Work Plan for the 200-CR-1 OU (REDOX Canyon/associated past practice waste sites) to EPA.  | UNDER NEGOTIATION |
| M-085-50*   | 12/31/15           | Submit Revised RAWP for the 224-B Concentration Facility in accordance with the Action Memo for the Non-Time Critical Removal Action for the 224-B Plutonium Concentration Facility (DOE/RL-2004-36). A change package with a completion milestone will accompany the submittal of the work plan. | UNDER NEGOTIATION |
| M-085-51*   | 12/31/25           | Submit RAWP for the 224T TRUSAF in accordance with the Action Memo for the Non-Time Critical Removal Action for the 224-T Plutonium Concentration Facility (DOE/RL-2004-68). A change package with a completion milestone will accompany the submittal of the work plan.                          | UNDER NEGOTIATION |
| M-085-60*   | 03/31/18           | Complete EE/CA Report(s) for all Tier 2 Facilities listed in Appendix J   | UNDER NEGOTIATION |
| <b>M-016-00 RL 40 – Complete Remedial Actions for all Non-Tank Farm and Non-Canyon Operable Units</b>   |                    |   |                   |
| M-016-200A  | 9/30/17            | Complete U Plant Canyon (221-U) Demolition in accordance w/ RD/RAWP   | On Schedule       |
| M-016-200B  | 9/30/21            | Complete U Plant Canyon (221-U) Barrier Construction in accordance w/ the RD/RAWP   | On Schedule       |

\*M-085 Milestone series is included in the Tentative Agreement for renegotiation.



# Project Baseline Performance

Contract to date (Through December 2012)

|  | Budgeted<br>Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost<br>Variance<br>(\$) | Cost<br>Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|--|--|--|--|------------------------------|-----------------------------|--------------------------|-------------------------|----------------------------------|------------------------------------|------------------------------------|
| <b>WBS 040/<br/>RL-0040<br/>Nuclear Facility D&amp;D</b> |  |  |  |                              |                             |                          |                         |                                  |                                    |                                    |
| U Plant/Other  | 199.4                                    | 199.4                                    | 193.7                                  | 0.0                          | -0.0                        | 5.7                      | 2.9                     | 199.4                            | 193.7                              | 5.7                                |
| Outer Zone   | 84.3                                     | 84.3                                     | 71.7                                   | 0.0                          | 0.0                         | 12.6                     | 15.0                    | 84.3                             | 71.7                               | 12.6                               |
| Asbestos Abatement                                       | 1.8                                      | 1.8                                      | 1.5                                    | 0.0                          | -0.0                        | 0.3                      | 17.2                    | 1.8                              | 1.5                                | 0.3                                |
| ARRA Total   | 285.5                                    | 285.5                                    | 266.9                                  | 0.0                          | -0.0                        | 18.6                     | 6.5                     | 285.5                            | 266.9                              | 18.6                               |
| Base   | 81.6                                     | 81.6                                     | 73.5                                   | 0.0                          | -0.0                        | 8.1                      | 9.9                     | 203.2                            | 193.8                              | 9.4                                |
| Total  | 367.2                                    | 367.1                                    | 340.4                                  | 0.0                          | -0.0                        | 26.7                     | 7.3                     | 488.7                            | 460.7                              | 28.0                               |

Numbers are rounded to the nearest \$0.1M.

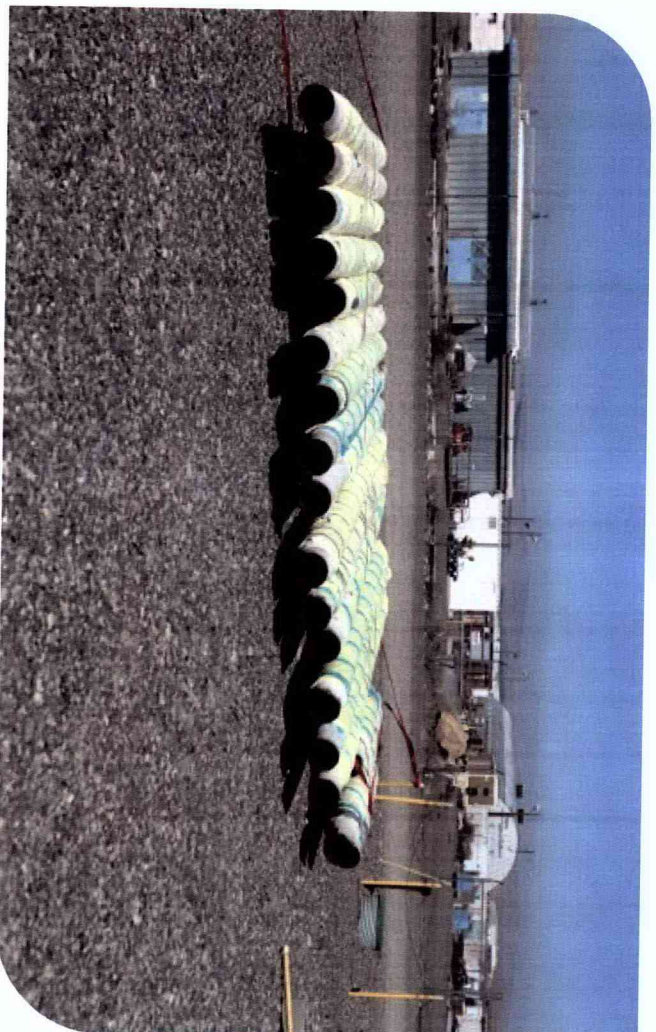




# Accomplishments

## Asbestos Abatement

- Monitoring and management of lines to protect environment and workers



- Staged cut and wrapped asbestos pipe awaiting offsite shipment
  - Disposed of @ Arlington
- Bags of asbestos debris in Storage/Conex Box
  - Disposed of @ Arlington

**Remainder of Central Plateau work is in a Minimum Safe Configuration**



# Planned Activities

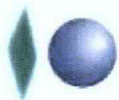
## Next 6 months

### Post D&D of Facilities:

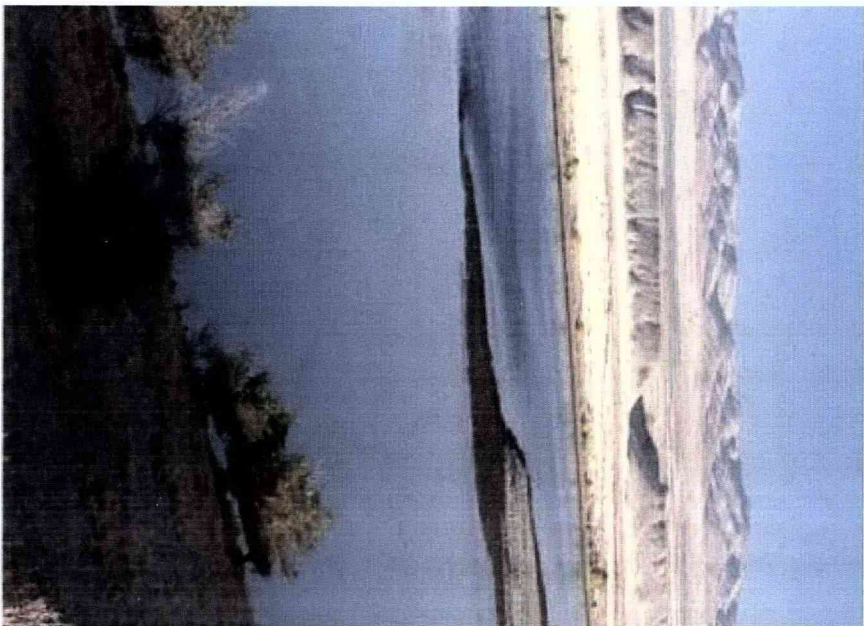
- Every 6-months conduct a walk-down of select sites with the Regulators as part of CHPR's S&M Plan
- Currently on the schedule when the weather permits is to walk-down a “Grid” on Upper and Lower ALE







**CH2MHILL**  
Plateau Remediation Company



# Soil and Groundwater Remediation Project Milestone Review

M-015-00, M-016-00, M-024-00, M-037-00

U.S. Department of Energy  
U.S. Environmental Protection Agency  
State of Washington, Department of Ecology

First Quarter FY2013  
January 17, 2012



# Accomplishments – 1st Quarter 2013

## ➤ **Completed TPA Target M-015-70-T01**

*Submit Feasibility Study Report and Proposed Plan for 100-HR-1, 100-HR-2, 100-HR-3, 1-00-DR-1, and 100-DR-2 Operable Units for groundwater and soil. Completed December 13, 2012*

## ➤ **Completed TPA Target M-015-64-T01**

*Submit CERCLA RI/FS Report and PP for the 100-FR-1, 100-FR-2, 100-FR-3, 100-IU-2, and 100-IU-6 Operable Units for groundwater and soil. Completed December 19, 2012*

## ➤ **Met Proposed Revised TPA Milestone M-015-00D**

*DOE shall complete the RI/FS process through the submittal of a Proposed Plan for all 100 and 300 area operable units. Renegotiated Completion Criteria for M-015-00D met December 19, 2012.*

## ➤ **Completed TPA Target M-016-110-T01**

*Take actions to contain or remediate hexavalent chromium groundwater plume in the 100 Area. Completed November 14, 2012*





# Accomplishments – 1<sup>st</sup> Quarter 2013

## 200 West Area Groundwater Treatment Facility

- Operating 24 hours/day, 7 days/week (except when down for repairs/maintenance)
- Pump-and-treat throughput ranges between 1.5M and 2M gallons/day (900 gpm to 1,400 gpm)
- Contaminant concentration consistently reduced to less than specified ROD cleanup levels

## 200-DV-1 – B Area Perched Water Extraction System

- Removed 20,376 gallons of effluent from the perched water zone, including extraction of:
  - 2 kilograms of uranium
  - 40 kilograms of nitrates
  - 941,000,000 pCi of Tc-99

## River Corridor and Central Plateau Groundwater

- Treated 426 million gallons of groundwater
- Removed 10,823 kg of contaminants from the groundwater
  - 113 kilograms of hexavalent chromium
  - 10,227 kilograms of nitrates
  - 483 kilograms of carbon tetrachloride
- Reduced aquifer tube sampling frequency downgradient of the ISRM barrier approved by Ecology
- Finalized Sampling and Analysis Plan, 100-HR-3 replacement wells

## Sampling

- 2,785 samples collected
- 6,695 analyses reported



# Milestone Summary

| TPA Number   | Milestone or Target Date | Milestone/Target Title   | Status                             |
|--|--------------------------|--|------------------------------------|
| <b>M-015-00 Complete RI/FS (or RI/CMIS &amp; RI/FS) Process for All Non-Tank Farm Operable Units Except for Canyon/Associated Past Practice Waste Site Operable Units Covered in M-85-00</b> |                          |  |                                    |
| M-015-70-T01   | 11/24/11                 | Submit FS Report and PP for 100-HR-1/2/3 and 100-DR-1/2 OUs  | COMPLETE                           |
| M-015-68-T01   | 11/30/11                 | (Renegotiating to 12/15/16) Submit RI/FS Report and PP for 100-BC-1/2/5 OUs for GW and Soil              | UNDER NEGOTIATION*                 |
| M-015-64-T01   | 12/17/11                 | Submit RI/FS Report and PP for 100-FR-1/2/3 and 100-IU-2/6   | COMPLETE                           |
| M-015-62-T01   | 09/17/12                 | (Renegotiating to 6/30/13) Submit FS/PP for 100-NR-1/2 OUs including GW and Soil                         | UNDER NEGOTIATION*                 |
| M-015-00D  | 12/31/12                 | (Renegotiating to exclude BC and N) Submit PP for all 100 & 300 Area OUs to Complete RI/FS Process       | COMPLETION CRITERIA MET            |
| P-015-74   | 1/31/13                  | Revise and submit the 100-BC-1,2 and 5 RI/FS Work Plan, including the SAP                                | PROPOSED NEW MILESTONE ON SCHEDULE |
| M-015-95   | 4/30/13                  | Submit RK/FS Work Plan for 100-OL-1 to EPA & Ecology   | ON SCHEDULE                        |
| P-015-75   | 6/30/13                  | Submit RI/FS Report and PP for the 100-NR-1 source OU and 100-NR-2 groundwater OU                        | PROPOSED NEW MILESTONE ON SCHEDULE |
| P-015-76   | 9/30/13                  | Install additional wells monitoring network as specified in revised 100-BC-1,2 and 5 RI/FS Work Plan/SAP | UNDER NEGOTIATION                  |
| <b>M-016-00 Complete Remedial Actions for all Non-Tank Farm and Non-Canyon Operable Units</b>  |                          |  |                                    |
| M-016-110-T01  | 12/31/12                 | Take Actions to Contain or Remediate Hexavalent Cr 100A GW Plumes  | COMPLETE                           |
| M-016-126  | 6/24/13                  | Submit a Draft A Remedial Design/Remedial Action Work Plan for 200-UP-1 to EPA                           | ON SCHEDULE                        |

\*Activities to meet target dates for M-015-68-T01 and M-015-62-T01 are being replanned; however, project has met the renegotiated completion criteria for the revised M-015-00D, which is tentatively agreed to by the Tri-Parties, currently undergoing public review.





# Milestone Summary

| TPA Number  | Milestone or Target Date | Milestone/Target Title  | Status       |
|---|--------------------------|---|--------------|
| <b>M-024-00 – Complete Well Installations with RCRA/CERCLA Requirements</b> |                          |   |              |
| M-024-63  | 12/31/12                 | DOE Shall Complete Construction of all Wells Listed   | COMPLETE     |
| M-024-58F   | 6/1/2013                 | Initiate Discussions of Well Commitments  | ON SCHEDULE  |
| M-024-64  | 12/31/2013               | DOE Shall Complete Construction of all Wells Listed   | ON SCHEDULE  |
| M-024-64-T01  | 8/1/2013                 | Conclude Discussions of Well Commitments  | ON SCHEDULE  |
| <b>M-037 – RCRA Closures</b>  |                          |   |              |
| M-037-03  | 04/30/2013               | Submit Revised Closure Plans to support TSD closure for two (2) TSD Units: 216-B-3 Main Pond system, and 216-S-10 Pond and Ditch. | ON SCHEDULE* |

\*Ecology provided the draft revised Closure Plan for the 216-B-3 Main Pond system to RL on December 10, 2012. The draft revised Closure Plan for the 216-S-10 Pond and Ditch was provided by Ecology on December 18, 2012.



# Project Baseline Performance

## Contract to date through November 2012

| WBS 030/<br>RL-0030<br>Soil and Groundwater<br>Remediation | Budgeted Cost<br>of Work<br>Scheduled | Budgeted<br>Cost<br>of Work<br>Performed | Actual<br>Cost<br>of Work<br>Performed | Schedule<br>Variance<br>(\$) | Schedule<br>Variance<br>(%) | Cost Variance<br>(\$) | Cost Variance<br>(%) | Budget at<br>Completion<br>(BAC) | Estimate at<br>Completion<br>(EAC) | Variance at<br>Completion<br>(VAC) |
|--|---------------------------------------|--|--|------------------------------|-----------------------------|-----------------------|----------------------|----------------------------------|------------------------------------|------------------------------------|
| *RL-0030.C1 GW Remedy<br>Implement                         | 73.4                                  | 73.3                                     | 85.5                                   | 0.0                          | -0.1                        | -12.1                 | -16.6                | 73.4                             | 87.4                               | -14.1                              |
| RL-0030.O1 RL 30<br>Operations                             | 479.4                                 | 481.0                                    | 475.2                                  | 1.6                          | 0.3                         | 5.8                   | 1.2                  | 1,150.5                          | 1,139.0                            | 11.5                               |
| *RL-0030.R1.1 Cleanup<br>Operations                        | 175.0                                 | 175.0                                    | 174.6                                  | 0.0                          | 0.0                         | 0.4                   | 0.2                  | 175.0                            | 174.6                              | 0.4                                |
| *RL-0030.R1.2 Well<br>Drilling Operations                  | 40.7                                  | 40.7                                     | 38.4                                   | 0.0                          | 0.0                         | 2.4                   | 5.8                  | 40.7                             | 38.4                               | 2.4                                |
| *RL-0030.R1.3 Support<br>Operations                        | 51.4                                  | 51.4                                     | 51.1                                   | 0.0                          | 0.0                         | 0.3                   | 0.5                  | 51.4                             | 51.1                               | 0.3                                |
| <b>TOTAL</b>   | <b>820.0</b>                          | <b>821.5</b>                             | <b>824.8</b>                           | <b>1.5</b>                   | <b>0.2</b>                  | <b>-3.3</b>           | <b>-0.4</b>          | <b>1,491.0</b>                   | <b>1,490.5</b>                     | <b>0.5</b>                         |

Numbers are rounded to the nearest \$0.1M.

\*This work scope has been completed and will not be reported in future reports.





# Planned Activities

## Next 6 months (cont.)

### 100 BC Area

- *Finalize TPA-CNs for BC-5 Work Plan and Sampling and Analysis Plan.*

### 100 K Area

- *Initiate well realignment and new well construction.*

### 100 N Area

- *Issue Draft A RI/FS and PP for Ecology review.*

### 100 F/IU Area

- *Resolve EPA comments and update RI/FS and PP; initiate public review of the Proposed Plan.*

### 100 D&H Area

- *Resolve Ecology comments and update RI/FS and PP.*

### 100 Area OU-1 (Orchard Lands)

- *Submit Draft A RI/FS Work Plan to EPA and Ecology*





# Planned Activities

Next 6 months

## 200-ZP-1 / 200-PW-1 Soil Vapor Extraction

- *Complete 200-W P&T OTP; Continue 24-hour unmanned operation.*
- *Complete 200-W P&T drilling and sampling of 6 new extraction/injection wells.*
- *Begin installing in-line Tc-99 monitor between ion exchange columns.*
- *Prepare CY12 200-PW-1 SVE Annual Report; Begin FY13 SVE operations.*

## 200-UP-1

- *Continue S/SX groundwater extraction system operations.*
- *Complete Draft A of the RD/RAWP.*

## 200-DV-1

- *Continue B Area perched water extraction system operations.*

## 200-BP-5

- *Decommission well #299-E33-18.*



# Planned Activities

## Next 6 months (cont.)

### 200-PO-1

- *Decommission well #299-E25-236.*
- *Revise assessment plan for WMA A-AX.*

### 200-WA-1

- *Complete EPA comment resolution and issue Rev. 0 of the 200-WA-1 Remedial Investigation/Feasibility Study Work Plan for the 200-WA-1 Operable Unit (200West Inner Area).*

### 200 Area

- *Submit revised Closure Plans for 216-B-3 Main Pond system, and 216-S-10 Pond and Ditch.*

### 300 Area

- *Issue Rev. 0 of the RI/FS and PP.*
- *Complete public review of the Proposed Plan, and initiate development of the Record of Decision.*

